

**THE PREVENTION OF FETAL ALCOHOL SPECTRUM
DISORDERS: AN ECOLOGICAL APPROACH**

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DECLARATION

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ABSTRACT

Fetal alcohol spectrum disorders (FASD) is caused by maternal drinking during pregnancy. Pre-natal drinking has a range of deleterious effects including physical, mental and behavioural consequences for the affected child. Although FASD is completely preventable, it is irreversible with consequences that last into adulthood. The range of effects of FASD forms a spectrum with fully developed FAS on the one end and no effects on the other end of the spectrum.

The Western Cape has one of the highest recorded rates of FAS in the world. This seriously affects almost all systems in society and strains the already overburdened educational-, health-, social- and judicial systems. For this reason preventing FASD is of the utmost importance and requires a comprehensive approach on multiple levels.

This study explores and describes FASD prevention services in the Bonnievale, Robertson, Ashton and Montagu-areas – a wine-producing area in the Western Cape. Available FASD prevention services on all levels of prevention, the focus-areas of the different prevention activities, collaboration and co-ordination between the role-players and obstacles in delivering prevention services, was examined. By adopting an ecological approach, FASD prevention services could be investigated on multiple levels.

This study used a combination of quantitative and qualitative research. An exploratory design and a purposive sampling method were used. Participants were interviewed individually and with the help of a semi-structured questionnaire.

The findings of the empirical investigation show that, although prevention efforts are applied on the universal, selective and indicated levels of prevention, a lack of formal prevention efforts that are actively pursued - especially on the level of indicated prevention - exists. This is aggravated by the absence of formal co-ordination of services and structured systems of referrals. NGO's and government departments are, as a result,

not clear about their respective roles and responsibilities and women with the highest risk for having a child with FAS, therefore, fall through the cracks of the system. This happens partly because social workers are often perceived as the only agents for social change in the community. According to the ecological approach all levels (micro, meso and macro) of organizations in the social environment should work together for change by repeating prevention messages on the different levels and thereby reinforcing it. In the study area, however, most FAS prevention services were on the micro-level with few on the meso-level and virtually none on macro-level.

Participants identified a lack of co-ordination, unplanned families, a lack of resources, a lack of training and training material and low levels of education as obstacles in service delivery.

Recommendations resulting from the study indicate that FAS prevention will benefit from structured, formal programs on all levels of prevention. This will require non-government organizations and government departments to co-ordinate services and to develop a formal system of referral amongst the role-players. Training of personnel in clinics, NGO's, government departments and volunteers, as well as the development of training material targeted at people on different levels of education, should receive attention. It is, in conclusion, recommended that community organizations and structures such as churches, places of business, farmer's associations and liquor outlets are actively involved in the prevention of FASD.

ABSTRAK

Fetale Alkohol Spektrum Afwykings (FASA) word veroorsaak deur alkoholgebruik tydens swangerskap. Alkoholgebruik tydens swangerskap het 'n reeks skadelike effekte, insluitend fisiese, psigiese en gedragsafwykings in die geaffekteerde kind. Alhoewel FASA heeltemal voorkombaar is, is dit onomkeerbaar en duur die gevolge daarvan voort in volwassenheid. Die reeks effekte van FASA vorm 'n spektrum met volledig ontwikkelde FAS aan die een kant en geen effekte nie aan die ander kant van die spektrum.

Die Wes-Kaap het een van die hoogste aangetekende voorkomssyfers van FAS in die wêreld. Dit affekteer feitlik alle sisteme in die samelewing en plaas nog meer druk op die reeds oorlaaide opvoedkundige-, gesondheids-, maatskaplike- en regssisteme. Om hierdie rede is die voorkoming van FASA van uiterste belang en word 'n omvattende benadering op veelvuldige vlakke vereis.

Hierdie studie ondersoek en beskryf FASA voorkomingsdienste in die Bonnievale-, Robertson-, Ashton- en Montagu-area – 'n wynproduserende streek in die Wes-Kaap. Die beskikbaarheid van FASA voorkomingsdienste op alle vlakke van voorkoming, die fokusareas van die verskillende voorkomingsaktiwiteite, samewerking en koördinerings dienste tussen die rolspelers, sowel as struikelblokke in voorkomingsdienste, is ondersoek. Deur die ekologiese benadering aan te neem, kon FASA voorkomingsdienste op veelvuldige vlakke ondersoek word.

Die studie kombineer kwantitatiewe en kwalitatiewe navorsing. Die ontwerp van die studie is verkennend en daar is 'n doelbewuste steekproef gedoen. Individuele onderhoude met deelnemers is met behulp van semi-gestruktureerde vraelyste gevoer.

Die bevindinge van die empiriese ondersoek toon dat, alhoewel voorkomingspogings aangewend word op die universele, selektiewe en indikatiewe voorkomingsvlakke, daar 'n gebrek bestaan aan formele voorkomingspogings wat aktief nagestreef word, veral op die

indikatiewe vlak. Dit word vererger deur die afwesigheid van formele koördinerende dienste en gestruktureerde verwysingsisteme.

Nie-regeringsorganisasies en staatsdepartemente het gevolglik nie duidelikheid oor hul onderskeie rolle en verantwoordelikhede nie. Die gevolg hiervan is dat vroue met die hoogste risiko om geboorte te skenk aan kinders met FAS, deur die kraak in die sisteem val. Dit geskied deels omdat maatskaplike werkers dikwels gesien word as die enigste agente vir maatskaplike verandering in die gemeenskap. Volgens die ekologiese benadering behoort alle vlakke (mikro, meso en makro) van organisasie in die sosiale omgewing saam te werk om verandering teweeg te bring deurdat voorkomingsboodskappe op die verskillende vlakke te herhaal en sodoende te versterk word. In die studie-area is die meeste voorkomingsdienste egter op mikro-vlak gelewer met min op meso-vlak en feitlik geen op makro-vlak nie.

Deelnemers aan die studie het 'n gebrek aan koördinasie van dienste, onbeplande gesinne, 'n gebrek aan hulpbronne, 'n gebrek aan opleiding en opleidingsmateriaal en lae vlakke van geletterdheid geïdentifiseer as struikelblokke in dienslewering.

Aanbevelings wat uit die studie voortvloei, dui aan dat FASA voorkomingsdienste sal baat vind by gestruktureerde, formele programme op alle vlakke van voorkoming. Dit sal vereis dat nie-regeringsorganisasies en staatsdepartemente hul dienste koördineer en 'n formele verwysingstelsel tussen die verskillende rolspelers ontwikkel. Opleiding van personeel in klinieke, NRO's, staatsdepartemente en vrywilligers, sowel as die ontwikkeling van opleidingsmateriaal wat persone op verskillende vlakke van opvoeding teiken, behoort aandag te geniet. Dit word laastens ook aanbeveel dat gemeenskapsorganisasies en strukture byvoorbeeld kerke, besighede, boere-verenigings en verkooppunte vir alkohol, aktief betrek word by die voorkoming van FASA.

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“The only things that stand between a person and what they want in life are the will to try it and the faith to believe it’s possible.”

Rich de Vos

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CHAPTER 1

INTRODUCTION

1.1 PRELIMINARY STUDY AND RATIONALE

Fetal Alcohol Syndrome (FAS) is seen as the leading preventable birth defect in the western world (May, Miller, Goodhart, Maestas, Buckley, Trujillo & Gossage, 2007:1). FAS is caused by prenatal exposure to alcohol via maternal drinking and is characterized by unique facial features, growth retardation and developmental delays (May et al, 2007:1). The highest recorded prevalence rates of FAS in the world have been reported in South Africa where the prevalence rate of FAS was 68.0 – 89.2 cases per 1000 births in a high risk community in the Western Cape Province (May, Gossage, Marais, Adnams, Hoyme, Jones, Robinson, Khaole, Snell, Kalberg, Hendricks, Brooke, Stellavato & Viljoen, 2007:267). Preliminary figures from a recent study in Bonnievale, Robertson, Ashton and Montagu, which formed the study community for this study, indicated a prevalence rate of 94 to 129 per 1000 children (May, 2011).

Compared to an average of 8 per 1000 in certain high risk communities in the USA and an average estimate of 0.97 in the developed world according to May et al (2007:260), this gives an idea of the extent of the problem in South Africa, and especially the Western Cape. A study conducted by May et al (2007: 267-268) found that the prevalence of FAS was extremely high overall, but highest in the impoverished rural areas of the Western Cape.

The Western Cape, a traditional wine and fruit producing area, has strong historical links with the consumption, production and trade of alcohol. Until recent years, farm labourers were partially remunerated with wine in what was called the “dop” system (May, Gossage, Marais, Hendricks, Snell, Tabachnick, Stellavato, Buckley, Brooke & Viljoen, 2008:740).

There is a drinking culture in the province where heavy weekend drinking (binge drinking) is characteristic and a major form of recreation, especially in farming communities (May et al, 2007:260). According to Viljoen, Croxford, Gossage, Kodituwakku and May (2002:7) "...alcohol is a favored, valued and expected commodity among many of the local population of workers." This gives a clear indication of the importance of alcohol in the everyday lives of the people.

Various studies (May et al, 2008: 742; May et al, 2007:263; Viljoen et al, 2002:7; May, 1995:1588) have shown that a high percentage of women continue their drinking pattern during their pregnancy. FAS and the dangers of drinking alcohol during pregnancy are, however, not unknown concepts to the general population in the study area. A community survey conducted during the same period of time as the before-mentioned study by May (2011), indicated that 86.5% of women and 66.7% of men in the study area have previously heard of FAS (Parry, 2011). This survey further indicated that 90.1% of women and 81.1% of men in the study area were of the opinion that no amount of alcohol is safe during pregnancy (Parry, 2011).

Viljoen et al (2001:14) pointed out that although episodic drinking is the norm among all drinkers in the community, binge drinking may be the norm for mothers of children with FAS. According to Chambers (2006) heavy episodic or binge drinking, is the riskiest drinking pattern during pregnancy, although no level of alcohol consumption is known to be safe during pregnancy. This drinking pattern contributes to the high prevalence of FAS in South Africa, and especially in the Western Cape.

The consequences of drinking during pregnancy are severe. The impact thereof includes learning disabilities, characteristic facial features and damage to the nervous system, organs and limbs, which stays with the child with FAS for their lifetime (Marais, 2006). This author further states that FAS is a significant health problem in South Africa and, if

the whole spectrum of disorders that may be caused by the use of alcohol in pregnancy is taken into account, the problem is even bigger. That makes prevention efforts all the more important. This is in accordance with the view of Chambers (2006) who says that prenatal alcohol exposure is of substantial public health concern.

Due to the consequences of FAS, McKinstry (2004:3) is of the opinion that the South African health authorities should restructure health care systems and strategies to address the 'epidemic' of FAS in the Western Cape. He concludes, however, by saying that "...a holistic, comprehensive approach will be necessary to begin reversing a trend that has been developing for 300 years". In order to follow a comprehensive approach in the Western Cape, professionals of different disciplines will need to work together in an organized and planned manner to achieve the necessary impact. A comprehensive approach for the prevention of FAS in South Africa, must consider the input of multiple disciplines and community organizations and structures, as well as prevention components on primary, secondary and tertiary levels of prevention (May et al, 2007:269).

According to Astley (2004:344) FAS prevention efforts span a broad continuum ranging from public health education and policy, to direct intervention which targets high-risk women. Astley (2004:348) continues by saying that prevention literature is strongly of the view that a comprehensive approach which utilizes the entire spectrum of effort - from public health education to targeted intervention - has the greatest impact. According to May and Hymbaugh (1989:516) secondary and tertiary efforts need to be more highly emphasized. He adds that a focus on secondary and tertiary levels has to be maintained to complement the primary prevention efforts. These efforts, May and Hymbaugh (1989:516) say, are mutually beneficial.

This line of reasoning is confirmed in an article compiled by a working group of the Alberta Partnership on Fetal Alcohol Syndrome (1999), which says that "...the goal of a

comprehensive prevention program is to provide overlapping levels of reinforcement (education and persuasion), incentives and interventions to prevent FAS.” The idea of overlapping levels for prevention is based on the ecological perspective where the individual is seen as a part of different systems in his/her environment which continually influence each other (Ott, Quinn & Thompson, 2004: 3-4).

May (1995:1553) is further of the opinion that a comprehensive prevention program must also target different types of drinkers: chronic and binge-, heavy and moderate-, recreational and problem-orientated drinkers. Since a variety of social problems affect drinking among females, prevention programs must be aggressive and broadly focused to deal with the various conditions associated with this problem (May, 1995:1553).

In the discussion of the study conducted on the epidemiology of FAS in the Western Cape by May et al (2007:269), the researchers state that comprehensive approaches, utilizing universal education and broad behavioural change techniques, will benefit from an infusion of resources and consistent organizational support. They further say that specific, targeted intervention, using selective approaches, as well as indicated prevention, utilizing case management for maternal support and guidance in a poorly educated population, are needed.

As a social worker in an NGO, this researcher has experienced that, although FAS prevention efforts exist, they are mostly fragmented awareness programs on a primary prevention level and does not provide the necessary “...overlapping levels of reinforcement” (Alberta Partnership on Fetal Alcohol Syndrome, 1999). Being involved in a comprehensive epidemiological study on FAS currently, this researcher realized the necessity of a multi-disciplinary and multi-level approach by professionals in the fields of social work, health and education as well as input from community sources such as

churches, in the prevention of fetal alcohol syndrome, especially in communities with a high prevalence of FAS.

Although quite a few epidemiological studies of FAS have been done in South Africa, no studies about the prevention of FAS from a social work perspective could be found (May et al, 2007; Viljoen et al, 2005). According to the Medical Research Council few studies on brief interventions for the prevention of FAS had been done internationally (Parry, 2008:10). Only one article on the prevention of FAS in South Africa could be found in the American Journal of Public Health (Rosenthal, Christianson & Cordero, 2005). Although several South African theses about FAS have been written, they were mostly in die fields of health, education and psychology.

No social work thesis about FAS or the prevention of FAS could be found. Existing studies either focus on the development of the child with FAS, or view FAS from a health perspective.

No South African studies about the prevention of FAS from an ecological perspective could be found, while only one article using the ecological perspective in FAS prevention was found (Ott et al, 2004). This indicates that there is room for a study which takes the environment and the influences it has on pregnant woman, especially in rural communities of the Western Cape, into account.

1.2 PROBLEM STATEMENT

Various studies (May et al, 2007; Viljoen et al, 2005) confirm the extremely high prevalence of FAS in the Western Cape. Literature confirms the need for a comprehensive approach to prevention activities on primary, secondary and tertiary levels over a wide spectrum of disciplines such as health, education and social work (May et al, 2007:269; Astley, 2004:348; Viljoen et al, 2001:15). FAS places a huge strain on the

already limited resources of the health care-, educational-, social welfare- and the judicial system as well as job creation (Chambers, 2006; Miller, 2005). Prevention efforts are, however, still fragmented and do not address the realities of FAS extensively. According to Parry (2005a:24) a national integrated strategy or policy for the prevention for FAS is needed. Such a policy must bring together a coordinated response which includes civil society (Parry, 2005a:24). It would, therefore, benefit the social work profession to explore and gain insight into the prevention FAS on multiple levels from an ecological perspective.

1.3 AIM OF THE RESEARCH

The aim of this research is to create an understanding of the existing nature of FAS prevention from an ecological perspective. In order to achieve this goal, the following objectives were devised:

- To discuss the ecological perspective, its concepts, principles and systems. To discuss the benefits of the ecological perspective for the prevention of FASD as well as for the different levels of intervention;
- To describe the phenomenon of FAS, the devastating physical, mental and behavioural consequences of drinking during pregnancy;
- To create an understanding of the needs, realities and socio-economic circumstances of women in the rural parts of the Western Cape and
- To investigate how different role players contribute to the prevention of FAS.

1.4 CLARIFICATION OF KEY CONCEPTS

For the aim of this study, the following concepts were clarified:

1.4.1 Fetal Alcohol Syndrome

“Fetal Alcohol Spectrum Disorders (FASD) is an umbrella term used to categorize the range of effects an individual may have as a result of maternal alcohol use. The most severe diagnostic category is Fetal Alcohol Syndrome (FAS). Others include Partial Fetal Alcohol Syndrome (PFAS), alcohol-related neuro- developmental disorder (ARND) and alcohol related birth defects (ARBD)” (Rendall-Mkosi, London, Adnams, Morojele, McLouglin & Goldstone, 2008, p.7). Astley (2004: 344) describes fetal alcohol syndrome as a “...permanent birth disorder that is characterized by growth deficiency, central nervous system damage or dysfunction and a unique cluster of minor facial anomalies.”

1.4.2 Prevention

The Alberta Partnership on Fetal Alcohol Syndrome uses the term prevention to refer to the elimination of the root causes of a problem. The article also says that prevention seeks to reduce the prevalence of a problem (Alberta Partnership on Fetal Alcohol Syndrome, 1999). In the ecological theory which is based on interdependence and where the relationships between organisms and their physical environment is seen as a whole, prevention efforts on a primary, secondary or tertiary level will therefore be seen as interdependent and related (Donald, Lazarus & Lolwana, 2002:45). From an ecological perspective primary prevention efforts which are applied to the broad community through awareness programs, secondary prevention efforts which refer to the targeting of pregnant women and tertiary prevention efforts that are applied to women with a high risk for having a FAS child through case management, should be used in combination.

1.5 RESEARCH METHODOLOGY

1.5.1 Research approach

According to Mouton and Marais (1990:169–170) the phenomena investigated by social sciences are so intertwined that a single approach cannot encompass human beings with all their complexities. De Vos (2005a: 360) refers to an “...evolution of methodological

approaches in the social sciences” and describe the combination of qualitative and quantitative approaches to the research methodology in a single study, as mixed method studies.

For the purpose of this study a mixed method approach creates the opportunity to both describe current prevention efforts and explain the need for a multi-disciplinary approach to the prevention of FAS in rural communities by making use of mixed method studies.

De Vos (2005a:362) states that the use of multi-methods can also lead to a synthesis or integration of theories. This author (De Vos, 2005a:365) continues by saying that the entire field, and not only the individual, is the place where integration takes place. According to this author it is, therefore, not so much the methods that are integrated, but the findings and their methodological contexts. To clearly show the need for a multi-disciplinary team approach to the prevention of FAS, it was necessary to integrate the findings in such a way that it is applicable in all the disciplines concerned with FAS prevention.

1.5.2 Research design

Kumar (2005:84) describes the research design as a procedural plan which a researcher adopts in order to answer questions validly, objectively, accurately and economically. In this study the exploratory design was used to answer the research question in a valid, objective and accurate way.

Babbie and Mouton (2001: 80) are of the opinion that exploratory studies usually lead to insight and comprehension of the research topic, rather than detailed and replicable data. An open and flexible research strategy, as well as the use of methods such as literature reviews, interviews and informants, are some of the most important considerations for the success of an exploratory study (Babbie & Mouton, 2001:80). By making use of a mixed

method study which includes a literature study, interviews and the use of knowledgeable professionals as sources of information, this study aimed to gain insight and comprehension into the research topic.

1.5.3 Research Method

1.5.3.1 Literature study

According to Ruben and Babbie (1993:104) one of the most important steps in the entire process of designing a study, is the literature review. Fouchè and Delport (2005:124–125) say that related literature builds a logical framework for research and places a research project in context.

As part of this research, a literature study that focused on the ecological perspective, the prevalence and consequences of FAS, the circumstances and realities of high-risk families that live in rural areas, as well as comprehensive prevention programs for FAS, was conducted.

1.5.3.2 Population and sampling

According to Ruben and Babbie (1993:219) sampling is “...the process of selecting observations.” Strydom (2005b:194) states that we study the sample in an effort to understand the population in which we are interested.

Ruben and Babbie (1993: 255) add that, on some occasions, it may be appropriate to select a sample based on the researcher’s own knowledge of the population, its elements and the nature of the research aims. The sample can thus be based on the researcher’s judgment and the purpose of the study. This means that a researcher can handpick key people who, in his/her judgment, best represent those persons who know the needs of their community. Kumar (2005:179) supports this opinion by saying that in purposive

sampling, the most important consideration is the judgment of the researcher as to who can provide the best information to achieve the aims of the study.

Ruben and Babbie (1993:255) are further of the opinion that a purposive sample of community leaders, experts and professionals known for their work with and expertise of the problem, can be selected. Kumar (2005:179) shares this view by saying that the researcher selects only those people who in his/her opinion are likely to have the required information and will be willing to share it.

Since the researcher was of the opinion that the best possible information would be obtained in this way, this study made use of a non-probability sampling type, specifically purposive sampling (Strydom, 2005b:201-202). The study population consisted of professionals and service deliverers in the fields of health, social development, education, safety and security as well as community development, all of whom were involved in the prevention of FAS in the study communities. These factors, namely being professional people or service deliverers in the fields of health, social development, education, safety and security as well as community development, and involvement in the prevention of FAS in the study communities, were the criteria for participation in the study. The majority of the study population was from the fields of social development and health since these are the fields primarily concerned with the phenomenon of FAS. The rest of the study population included a few individuals who were involved in FAS prevention efforts in the study communities.

The study community included the towns and surrounding farming areas of Robertson, Ashton, Montagu and Bonnievale. Results can therefore only be generalized within this population group. Since it is a non-probability sample, the size of the sample is not of critical importance. A sample size of 22 professional people in the fields of health, social development, community development, education and safety and security were sufficient

for the purposes of this study. The sample consisted of five social workers from NGO's in the study community, the CEO of FAS Facts (a NGO concerned with FAS prevention), the development worker of the Rural Development Forum in the Robertson area, one police official involved with social crime from the study area, a school psychologist and a social worker from the Department of Education in Worcester, the co-ordinator of the alcohol and drug programs of the Department of Social Services in Worcester, six nursing sisters in charge of clinics in the study area, a social worker from Breederiver Hospice, the program manager of the Fetal Alcohol Syndrome Epidemiological study in the area, a senior official and a sonographer from the Department of Health in Worcester and the Head of a children's home in Robertson. Kumar (2005:179) describes this type of sampling as very useful when a researcher wants to construct a historical reality, describe a phenomenon or develop something about which little is known.

1.5.4 Method of data collection

The method of data collection chosen for this research, is what Greeff (2005:296) calls the semi-structured one-to-one interview. This method allows the researcher to follow up interesting information and opinions that emerge in the interview allowing the participant to give a fuller picture. Ruben and Babbie (1993:351) are of the opinion that one of the advantages of an interview is that the interviewer can make important observations herself rather than relying solely on the participants' response to the questions. In this study where the experiences and informed opinions of professionals and active participants in the field of FAS prevention were used as the source of information, the participant was perceived as the expert on the subject and the interview schedule (Annexure E or F) guided, rather than dictated, the interview (Greeff, 2005: 296).

Before conducting the interview, informed consent to participate in the study (Annexure A or B), was obtained from each participant. As part of this informed consent, it was

explained to the participants that the interviews would be tape-recorded. All participants granted permission that the interviews could be tape-recorded.

Although this method of data-collection could be time-consuming, the sample size was small enough to make it practically possible to use this method. Furthermore, the study area was contained and well known to the researcher.

1.5.5 Method of data analysis

De Vos (2005b:333) describes data analysis as the process whereby order, structure and meaning is brought to the mass of collected data. This process does not progress in a linear fashion, but is seen as a search for general statements among categories of data (De Vos, 2005b:333). Kumar (2005:244) is of the opinion that, the most important consideration in developing the frame of analysis in a qualitative study, is the style of writing the researcher prefers. Kumar (2005:240) also states that for analyzing qualitative data, one needs to go through a process called content analysis to identify the main themes that emerge from the responses.

The data analysis of this study started with tape recordings of the interviews and the writing of field notes during and directly after each interview. De Vos (2005b:335) describes this process as an inseparable relationship between data collection and data analysis. Thereafter, the data were organized and tape recordings were transcribed. Before the information was interpreted, the researcher read carefully through the transcribed interviews and marked general themes and sub-themes. Closed questions based on the literature that were included in the questionnaire, were also analyzed. The data was then summarised and interpreted in the research report and compared to the existing data in the literature study. The data obtained is presented in chapter five with the help of graphs, figures and narratives.

1.5.6 Method of data verification

De Vos (2005b:346-347) refers to four questions to which all research must respond as criteria of the validity of the research. They are the questions of:

- Credibility. This is to demonstrate that the inquiry was conducted in such a way as to ensure that the subject was identified and described in an accurate manner. In this study participants were asked to give information only about the FAS prevention services their own organization or department delivered. Since the participants were professional people and most were in a senior position in their organizations, they were well informed about the services their organizations rendered.
- Transferability. This refers to the ability to generalize to other settings. The information collected in this study, was specific information about services in the study community. It can, therefore, not be transferred to other settings or communities unconditionally. However, since the same organizations and departments involved in this study deliver the FAS prevention services in many Western Cape communities, the information can be applied to create a general view of the availability of services as well as the needs and obstacles that exist in the field of FASD prevention.
- Dependability is the alternative to reliability. The researcher attempts to account for changing conditions in the phenomenon and changes in the design by an increasingly refined understanding of the setting. Positivists assume that studies can be replicated. The qualitative assumption, however, is that the social world is always being constructed and that the concept of replication itself is problematic (De Vos et al, 2005b:346-347). This study, however, could be replicated in other communities to test the dependability of the findings.
- Conformability. De Vos (2005b:347) describes the appropriate qualitative criterion by asking if the data helps confirm the general findings and leads to the implications. This

captures, according to De Vos, the traditional concept of objectivity. Although this study did not test specific findings of another study, the study results were confirmed by general literature as showed in chapter five.

1.5.7 Ethical considerations

Ruben and Babbie (1993:57) use the definition of “Webster’s New World Dictionary” to describe the term ethical as “...conforming to the standards of conduct of a given profession or group.” Strydom (2005a:57) takes this definition further, by saying that ethics is a set of moral principals suggested by an individual or group. This set of moral principals is widely accepted, and offers rules and behavioural expectations about the most correct conduct toward experimental subjects and respondents. Ethical guidelines also serve as standards and a basis upon which each researcher ought to evaluate (her) own conduct. As a registered social worker, the researcher was led by the ethical code of the SACSSP.

The relevant ethical considerations in this study were:

- Informed consent (Strydom, 2005a:59). Participants were given adequate information about the study, the type of information wanted from them, for what purpose the information would be used and how it would affect them. Informed consent forms were given to participants once they have agreed to partake in the study voluntarily.
- Confidentiality (Strydom, 2005a:61). All information, as well as the individual identities of participants, was confidential and only accessible to the researcher and her supervisor.
- Appropriate use of the information (Kumar, 2005:215). The information was not used in such a way that it had adverse effects on the participants or caused any personal harm or damage to their careers.

- Release or publication of the findings (Strydom, 2005a:65). The findings of the study were conveyed in a clear and applicable manner to the participants and their organizations in order to contribute to a more effective prevention programs for FAS.
- Code of ethics of the SACSSP by which the researcher is bound.

1.5.8 Limitations of the study

Limitations that were considered included the following:

- Limited literature concerning the prevention of FAS in the field of social work, was available,
- The study mostly relied on literature and studies done in Native American communities.
- Professional people were reluctant to give information that might be perceived as critical of existing programs in their organizations for fear of endangering their positions.
- Individual professionals may not be able to apply the proposed changes in services due to the policies of their organizations.

1.6 CHAPTER LAYOUT

The report consists of six chapters. Chapter 1 serves as an introduction. Chapter 2 gives an overview of the background and development of the ecological perspective, ecological concepts, criticism on the ecological perspective and levels of intervention. Chapter 3 describes the phenomenon of FAS, the FASD spectrum and the physical, mental and behavioural consequences of drinking during pregnancy, as well as risk factors for FASD. Chapter 4 describes farm work in South Africa, its background, the socio-economic realities of women in the rural parts of the Western Cape and alcohol abuse by farm workers from an ecological perspective. Chapter 5 consists of the data and results of the research about current prevention efforts and the need for a comprehensive approach.

Based on the findings, chapter 6 consists of conclusions, guidelines and recommendations for a comprehensive approach to the prevention of FAS.

CHAPTER 2

THE PREVENTION OF FETAL ALCOHOL SYNDROME: AN ECOLOGICAL PERSPECTIVE

2.1 INTRODUCTION

One of the aims of this study is to explain the current levels of prevention of FASD implemented by the relevant disciplines such as health professions, education, social work professions, community development and safety and security. The realities of women in rural areas and how it contributes to the high frequency of FAS is one of the main concerns of the study. Since the focus of prevention, like the focus of intervention, is on the person and the environment, the ecological frame of reference is used.

Netting, Kettner and McMurtry (2004:9) state that the social worker needs an understanding of the problem, the population involved, as well as the arena (the community or organization) where it occurs, in order to bring about changes in the environment. It also requires that the social worker sees the client as part of the "...multiple, overlapping systems comprising the person's social and physical environment" (Netting et al, 2004:10). These authors state that it will further require from the social worker to collaborate and partner with professionals from other disciplines in order to use knowledge from diverse fields to bring about change.

Social work as a profession developed in an environment that needed social change due to common practices such as the oppression of women, ethnic and sexual minorities (Netting et al, 2004:43). Over the years however, there has been a shift in the focus of the social work profession from interventions with, and services to, individuals, to interventions and services to and within larger systems. Social workers have realized that it is sometimes not the person who needs to change, but that changes should take place in the environment (Netting et al, 2004: xiv). Hayes (1993:394) states that our behaviour is often

directly influenced by the type of environment we live in and how it is organized. This realization changed the dynamics of practice and the expectations of practitioners of whom it was increasingly expected to intervene at the community level (Netting et al, 2004:xiii). According to Pincus and Minahan (1973:xii) a social worker has to work with, and maintain, relationships with a variety of people as part of a planned change effort.

Since this study is about the prevention of fetal alcohol syndrome, the problem addressed is the existence of fetal alcohol spectrum disorders. A clear understanding of what fetal alcohol syndrome entails is therefore covered in chapter three. In order to bring about change, it will also be necessary to know and understand the population and the communities where interventions are intended. Chapter four therefore describes the socio-economic circumstances of women on farms in the Western Cape.

In this chapter the development of the ecological perspective, the background, principles, theoretical principles underlying the ecological perspective, and ecological concepts are described. The chapter also looks at how the ecological perspective can be applied to FASD prevention, the different levels of prevention as well as the principles for prevention embedded in the Integrated Service Delivery Model.

2.2 THE DEVELOPMENT OF THE ECOLOGICAL PERSPECTIVE

According to Pincus and Minahan (1973:8) every helping profession needs its' own frame of reference to view the situations it is concerned with. To understand the development of the ecological perspective as a frame of reference for this study, it is necessary to have knowledge about the need for a theory, as well as of how the systems theory was a fore-runner of the ecological perspective. The background of the ecological perspective, its' principles and concepts, different systems in the ecological perspective and criticism on the ecological perspective, is discussed hereafter. How the ecological perspective can be

applied in the prevention of FASD, the different levels of intervention as well as the Integrated Service Delivery Model, is also discussed.

2.2.1 The need for a theory

Dale, Smith, Norlin and Chess (2006:23-24) define a scientific theory as “a set of interrelated concepts, definitions and statements about relationships that can be tested empirically. The purpose of theory is to increase our understanding of the world by a systematic process of inquiry and validation of knowledge”. According to Dale et al (2006:25), all theories start with a set of assumptions about humans and the world in which they live.

For the purposes of this study, the set of concepts, definitions and the understanding of the world that is used, is that of the ecological perspective since it provides the opportunity to see people and their environments as a unit within their unique cultural and historic context. Ecology also offers the language and concepts to understand the complex relationships between people and their environments (Encyclopedia of Social Work, 1995:816). The focus of the ecological perspective is on the interaction between person and environment and how they shape and influence each other over time (Germain & Gitterman, 1996:6). This offers a framework to understand why and how people and their environments influence one another. The ecological perspective as a frame of reference also enables social workers to take a holistic view of people and their environment as a unit which can only be understood in the context of its relationship to one another (Germain, 1991:16).

2.2.2 Systems theory as a fore-runner of the ecological perspective

In a diverse profession such as social work, one of the mayor challenges is to develop a broad enough understanding of the profession to get the commitment of all social workers to service delivery, despite the selected method or field of practice (Germain, 1991:3).

Historically, social work was based on a person-situation concept. In the 1950's the more dynamic concepts of social role, social class, family structure and organizations were developed, along with new ideas about the ego and its relations to the environment. Although this made the social environment seem more understandable, it did not offer strategies for change (Germain, 1979:3). This author further states that this view could not link the individual and the environment in a satisfactory way (Germain, 1979:5).

In the late 1960's and early 1970's, ideas from the general systems theory, which originally was a biological theory, enriched social work practice and theory-building. The general systems theory proposed that all organisms are systems which consist of sub systems and that systems, in turn, are part of super systems. Systems ideas were applied to social work in a book by Pincus and Minahan published in 1973. Payne (1997:141) states that the principle of their approach was that "...people depend on systems in their immediate social environment for a satisfactory life, so social work must focus on such systems." This theory was applied to informal systems such as family and friends, formal systems like community groups and societal systems such as schools and hospitals (Payne, 1997:137).

According to Donald et al (2002:47) in systems theory, the functioning of different groupings of the social context are seen as systems in which the functioning of the whole depends on the interaction between the different parts. If the family is used as an example of a system, the parents will be a subsystem while the family as a whole is part of a community, which is the super system. Although a family consists of individual members, it tends to function in such a way that it protects its characteristic patterns.

Furthermore, the dynamic relationship between elements, and levels of society, is stressed in systems theory (Dale et al, 2006:8). The word dynamic means that there are continuous changes in parts of the system. These changes inevitably affect other parts of

the system because the different parts of the system are interrelated. It can therefore be said that the systems theory emphasizes the connectedness of social phenomena. In systems theory it is expected that social phenomena are examined as a whole and not as the sum of individual parts (Dale et al, 2006:10).

Dale et al (2006:10) further states that "...the flow of energy from the environment into the individual, the process by which the individual converts these inputs, and the flow back into the environment as outputs, constantly transforms both the individual and society." However, cause and effect relationships in systems are not linear, but rather occur in cycles. This means that a change in one part of the system cannot be seen as the only cause of action in another part of the system. Actions are rather seen as triggering and affecting one another in repeated, cyclical patterns which may establish a vicious cycle (Donald et al, 2002:49).

According to Payne (1997:140) the attraction of systems theory to social work, is its focus on "wholes" and not only parts of social behaviour. Hardcastle, Wenocur and Powers (1997:39) also state that the guiding principle in systems theory is that it is both possible and desirable for a system to be well-integrated and to function smoothly. If the system is not functioning properly, the aim of the social worker is to identify where problems occur in the interactions between clients and their environments. Although neither the client nor the environment may have problems, the interaction between them may be problematic (Payne, 1997:142). Dale et al ((2006:30) state that the systems theory offers a way to view human behaviour that focuses on the person and his/her total situation.

The principles of systems theory are summarized by Walsch (2006:83) as:

- The principle of connectedness which refers to the principle that all parts of a system are interconnected. This means that changes in one part of a system will influence the functioning of all the other parts;

- The principle of wholeness which means that any phenomenon can only be understood by viewing the entire system;
- The principle of feedback which refers to the fact that the behaviour of a system affects its external environment and the environment in return, affects the system.

Even though the principles of systems theory are clear, it had, according to Germain (1979:6-7), three serious shortcomings:

- It provided rich insights into the client's life space, but is not able to prescribe what to do about it;
- The terms of systems theory were difficult to reconcile with humans although the ideas behind the terms are important;
- The constructs of systems theory are very abstract and difficult to apply to real life situations.

Although systems theory had an important influence on social work and provided a way of understanding how people can affect and influence each other, it could not link the individual and the environment in a satisfactory way (Germain, 1979:5; Payne, 1997:146).

2.2.3 The ecological perspective

2.2.3.1 *Background*

The need to find a link between the individual and the environment, has led to the development of the ecological perspective. This process was started in 1950 when a committee effort, led by Bartlett and Gordon, defined social work as "...The [social worker] facilitates interaction between the individual and his [sic] social environment with a continuing awareness of the reciprocal effects of one upon the other" (Germain, 1991:4). Further work by Bartlett in 1970, led to the development of concepts such as *life tasks* and *coping* that are used in the ecological perspective. Also in 1969 Gordon stressed the

importance of the understanding that the task of the social worker is to match a person's coping methods with the challenges of their environment. This work by Bartlett and Gordon between 1950 and 1970 carried the seeds of an ecological approach to social work (Germain, 1991:4).

From the work of Dobzhansky (1976), a geneticist and evolutionary biologist, Germain (1991:15), reached the conclusion that because people are diverse, they need different environmental conditions in which to reach their full potential. Germain and Gitterman (Hayes, 1993:393) therefore used ecology, which they described as "...the science that studies the relations between organisms and environments," as a metaphor for practice in social work. In doing so, they encouraged a holistic view of people and their environments as a unit that can only be understood in relationship to one another. In this relationship there are continuous exchanges between people and their environments through which they shape, influence and sometimes even change each other (Germain, 1991:16). Currently the ecological perspective is used in various academic disciplines, for example nursing, psychiatry and education (Germain; 1979:1).

2.2.3.2 Principles of the ecological perspective

The ecological perspective clearly points out the need to understand human beings at all levels, together with their environments. According to Germain (1979:7) the ecological perspective provides insights into the nature and consequences of the transactions between human beings and the physical and social environments in which they function. In order to create a theoretical foundation for social work stemming from this point of view, Germain (1991:16) states that a "...biological, physiological, psychological, emotional, environmental, and cultural knowledge and theory are required." Ecology is therefore successfully used as a metaphor for social work because it accents the interdependence of the organism and its environment (Germain & Gitterman, 1996:5). Through the use of

the ecological metaphor, the social work profession can fulfill its purpose of helping people and enabling responsive environments to create fertile ground for human growth, health and satisfactory social functioning (Germain & Gitterman, 1996:5).

Germain and Gitterman (1996:6) further state that people can be understood only in the context of the relationship or the interdependence between and among them and the environment. In these relationships individuals, families, groups and environments continually influence the functioning of each other. This view is confirmed by Donald et al (2002:45) who states that "...ecological theory is based on the interdependence and relationships between organisms and their physical environment. These relationships are seen as a whole. Every part is as important as another in sustaining the cycles of birth and death, or regeneration and decay, which together ensure the survival of the whole system."

However, relationships between people and their environments are not always as simple as cause- and effect or linear relationships. Transactional relationships, which refer to exchanges between people or environments which can change or influence each other over time, also occur. According to Germain (1991:16) both entities are changed in transactional relationships. That has consequences for both, whereas in linear transactions, one entity changes the other. Linear transactions can therefore be seen as one-directional while transactional causality is a circular loop where a cause may be at one point in the loop and the effect at another.

Figure 2.1 represents a transactional relationship where exchanges between people or environments influence each other. Each entity is changed by interaction with each other and where it may be a cause at one point in the loop, it may be an effect at another in the ongoing flow of exchanges.

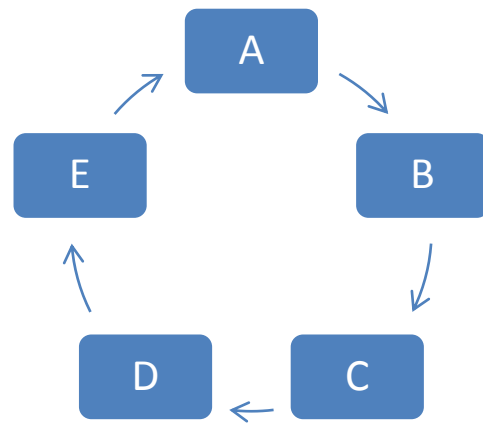


Figure 2.1 Transactional relationships are a circular loop

Source: Germain & Gittermain (1996:7)

Donald et al (2002:45) also explains this concept by using the spider's web as an example. These authors describe a spider's web as a whole system. If something happens in any part of the web, for instance if an insect is caught, it is felt in all the other parts of the web. If the insect was caught as food, it sustains the whole system. If the web was broken in the process, it must be repaired. If the insect dies in the web, it affects other systems – and so the cycle continues. The relationships between human beings and their ecological interactions in the social environment can be described by using similar concepts. The next figure (Figure 2.2) creates an idea of the individual in interaction with different levels of organization in the social context. All levels are interacting with each other. They are also interacting with other levels in the total ecological system. Social workers can use this figure to enhance their understanding of interaction between the individual and the different levels of organization in his/her social environment.

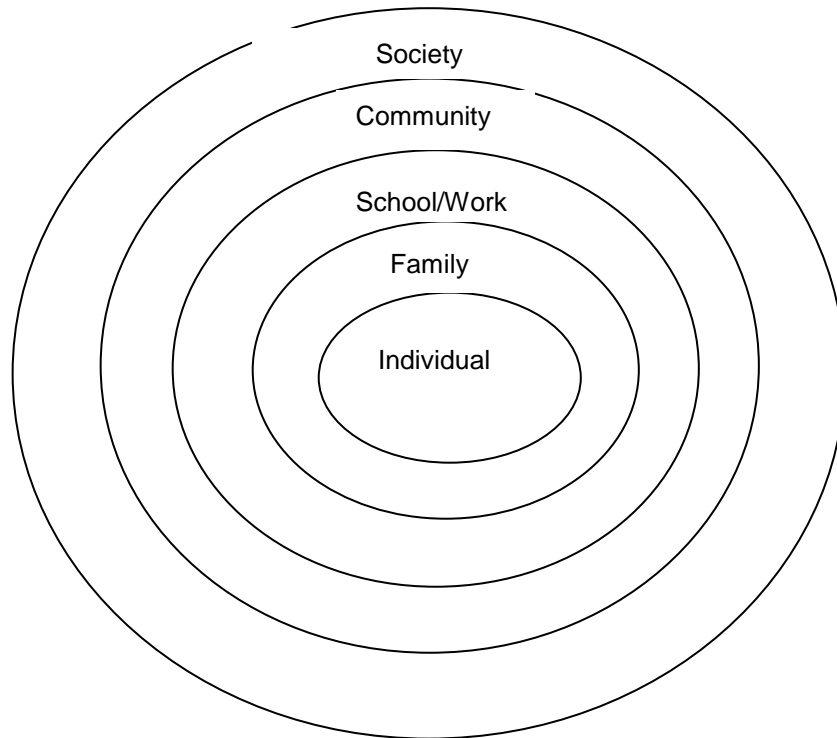


Figure 2.2 Levels of organization in the social environment

Source: Donald et al (2002:46)

This particular quality of the ecological perspective makes it unique in the sense that it recognizes that behaviour does not occur in a vacuum. This perspective gives recognition to the physical environment, the relationship between people and the environment on intrapersonal, interpersonal, organizational and community levels, as well as to public policy. In this perspective the individual alone is not targeted for interventions, but the social processes and agencies that influence behaviours, are also engaged (Ott, Quinn & Thompson, 2004:2-3).

As early as 1979, Germain (1979:10) stated that in the ecological perspective, humans are seen as active, goal-seeking, purposive beings that make decisions and choices and take actions guided by the memory of past experiences and anticipation of future possibilities. Germain (1979:8) further stated that, although some populations are denied choices and action by the societies in which they live, they still have the potential for growth. In the

same way environments have the potential to support human diversity if these humans use their capacities to release environmental possibilities. In order to intervene successfully in the lives of people, it is therefore necessary that a set of environmental interventions along with a set of interventions into the transactions between people and environment is implemented. These interventions must complement the coping patterns of people. The author clarified this view by stating that the professional purpose of social work develops from a dual, simultaneous concern for the potential of people to adapt, coupled with the nutritive qualities of their environments.

In an ecological view, the aim of social work practice is to improve the transactions between people and their environments in order to enhance adaptive capacities and to improve environments for everyone who functions within them. This statement has relevance for this study which aims to stress the importance of prevention efforts towards the individual as well as at different levels and structures of the physical and social environment in which the individual resides.

2.2.3.3 Ecological concepts

The theoretical systems that are used in the ecological perspective, provides understanding of human beings at all levels of organization, as well as an understanding of their environments. In order to create this understanding, knowledge and theory from different fields of knowledge and professions are required to create a theoretical foundation for social work. Several sets of concepts were developed from ecology or its use as a metaphor to create a theoretical foundation for use in social work (Germain, 1991:16-17). Concepts such as person:environment fit, adaptedness and adaptation, life stressors and stress, coping, power and pollution, human relatedness, habitat and niche, are discussed in this section.

2.2.3.3.1 *Person:environment fit*

The concept 'environment' refers to the physical environment, which is the natural and built world, as well as to the social environment which consists of a network of human relationships at different levels of organization (Germain, 1979:13). Germain further states that physical and social environments are influenced by knowledge, beliefs, cultural values and norms which determine the way in which individuals use and respond to the environment.

The concept person:environment fit is described as "...the actual fit between an individual's or a collective group's needs, rights, goals and capacities and the qualities and operations of their physical and social environments within particular cultural and historical contexts" (Encyclopedia of Social Work, 1995:817). The exchanges between a person and the environment can be positive, negative or neutral. When there are positive exchanges or a favorable fit between the person and his/her environment, there is relative "adaptedness". In this situation, ongoing development, satisfactory social functioning and a sustained or enhanced environment is ensured. Whenever negative exchanges over time or a poor fit between the needs, abilities, rights and goals of a person and his/her environment occur, the individual's functioning might be impaired and the environment damaged (Germain & Gitterman, 1996:8).

It is possible that a person can improve their fit with the environment by making changes either to the self or to the environment. By making these changes, human potential, growth, health and gratification are released and supported by adaptive person:environment exchanges. To the contrary, dysfunctional exchanges cannot support adaptedness or assist the potential for adaptedness (Germain & Gitterman, 1996:8).

2.2.3.3.2 Adaptedness and adaptation

Germain (1991:17) describes the term “adaptation” as the central ecological concept. Adaptation refers to behaviours that move an individual toward adaptedness. The behaviour may be on the basis of biological, cognitive, emotional, social or cultural needs or rights (Germain & Gitterman, 1996:9). According to Germain (1991:17) the term implies an action orientation. This means that humans aspire throughout their lives to reach the best possible person:environment fit between what they need, their rights, capacities and aspirations versus the qualities of the environment. If an individual is not satisfied with their person:environment fit, or if circumstances change, a person can make the decision to change either themselves, the environment or both. Such changes are known as adaptations.

Adaptations can be either internal or external. Internal adaptations refer to physiological or psychological changes, whilst external adaptations refer to social or cultural changes. Adaptation is not a passive adjustment, but an active process of change. In order to survive, it is also possible for a person to make the decision to remain passive in certain situations. The difference is, however, that staying passive in these situations is a decision and not the result of an environmentally controlled force (Germain, 1991:17-18).

Germain (1991:18) also states that personality, available resources, experience, the nature of the environment and culture of a person shapes the content and direction of adaptations. The Encyclopedia of Social Work (1995:817) further describes adaptation as “...continuous, change-oriented, cognitive, sensory-perceptual, and behavioural processes people use to sustain or raise the level of fit between themselves and their environment”. In conclusion, it is clear that the process of adaption is never-ending and can either include the search for new, more responsive environments or result in moving away from unfavorable situations or environments.

2.2.3.3.3 *Life stressors and stress*

Life stressors are caused by external factors which create feelings of being 'in jeopardy'. It takes the form of harm, loss or the threat of future harm or loss. This results in internally generated stress with the possibility of physiological or emotional consequences. Stressors cause feelings of anxiety, guilt, anger, despair, helplessness or depression (Germain & Gitterman, 1996:10-12). According to Germain (1991:19) some theoretical frameworks regard stress as an environmental event, while others regard it as a physiological reaction and ignore the environmental and emotional circumstances which contribute to stress. However, life stress refers to either a positive or a negative person:environment relationship. The way in which a person perceives these events, depends on various factors such as age, gender, culture, physical and emotional states and previous experiences. Personality, the availability of resources for coping and the perceived nature of the environment, also influences how a person perceives events (Germain & Gitterman, 1996:12; Germain, 1991:20). Germain (1991:20) further states that what one person may perceive as a life stressor may be a challenge or completely neutral event to another.

Germain and Gitterman (1996:12) add that the way in which a person perceives an event, determines the stress reaction, the feelings that are created and the outcome of the adaptations. If a person believes he/she has the personal and environmental resources to master a situation or traumatic life experience, it is perceived as a challenge. Challenges can also be stressful, but are normally accompanied by feelings of competence, self-direction and zest. In contrast, stressors are accompanied by feelings of being in jeopardy. However, how we perceive life stressors may be erroneous due to beliefs, perceptions and thoughts which intensifies the stress.

It is also important to understand that prolonged stress, coupled with ineffective coping and personal vulnerability, can cause physiological, emotional or social dysfunction. On the other hand, a challenge may cause periodic anxiety, while the person remains hopeful, confident, experiences a sense of competence, self-esteem and self-direction (Encyclopedia of Social Work, 1995:817). Germain (1991:19) is of the opinion that, unless the feelings accompanying stress and stressors are properly managed, they may lead to the impairment of growth, bad health and lowered social functioning. People who are trying to manage stressful events often seek the help of a social worker. The task of the social worker is to assist the client in assessing whether his/her appraisal of the stressors and resources are correct (Germain & Gitterman, 1996:9-12).

2.2.3.3.4 Coping

Germain (1991:21) defines coping as the ability to make special adaptations during the emotional experience of stress. The Encyclopedia of Social Work (1995:817) describes coping measures as "...special behaviours, often novel, that are devised to handle the demands posed by the life stressor." They continue by saying that coping often raises the level of person:environment fit and therefore improves the quality of exchanges between them. This, in turn, allows for higher levels of relatedness, competence, self-esteem, as well as self-direction. It can thus be referred to as growth achieved through the mastery of a challenge (Germain & Gitterman, 1996:13).

When coping activities are unsuccessful and severe stress continues, it leads to physical problems, emotional disturbance and even disrupted social functioning. Further stress is created by these unsuccessful coping mechanisms which lead the person into a downward spiral which becomes more and more difficult to break. The demands of stress often exceed the coping abilities of the person affected and can spread to affect other primary relationships or work relationships. In this way, multiple stressors are created, leading to

increased stress and pressure on the coping abilities of that person or family (Germain, 1991:21; Gemain & Gitterman, 1996:13).

The ability to cope expresses a positive person:environment relationship and depends on various environmental and personal resources. Coping has two major purposes, namely problem-solving and controlling negative feelings created by the stressor. These two functions are interdependent in the sense that they are a requirement of one another and support each other. The outcome of an improvement in problem-solving is the rebuilding of self-esteem and more effective control over negative feelings caused by stressors. This enables the person to problem-solve more effectively (Germain, 1991:21).

Negative feelings are however a big handicap in resolving problems. To be able to cope successful with severe stressors, it is necessary to partially block out negative feelings and even some realities of the situation in order to obtain hope and start problem-solving. With problem-solving, self-esteem is enhanced and hope can be restored so that the person's defenses relax. Effective functioning personal and environmental resources such as family, church and emotional support in the community, are necessary to solve problems, control feelings and experience self-esteem (Germain, 1991:22). These resources, while available in the community, may be difficult to access, unresponsive or cease to be supportive (Germain &Gitterman, 1996:13).

In contradiction to coping with life stressors, a person can react with defense mechanisms such as denial. Although these mechanisms can be helpful on the short term, they are more often maladaptive from the outset (Germain, 1991:22-23). Germain and Gitterman (1996:9-13) state that certain personal resources, such as motivation, problem-solving and relationship skills, a positive and hopeful outlook, good levels of self-esteem and self-direction and the ability to find and use environmental resources, are needed for coping.

It must also be acknowledged that some life stressors cannot be changed by individuals but can be perceptible to collective action by communities or groups. Also, societal stressors such as poverty and unemployment need societal solutions (Germain, 1991:23). It is also important to understand that coping occurs over time. While some stressors can be handled quickly and effectively, others may be present for a long time (Germain & Gitterman, 1996:13).

2.2.3.3.5 Human relatedness, competence, self-direction and self-esteem

The concepts of human relatedness, competence, self-direction and self-esteem, represent positive person:environment relationships across the life course of individuals, groups and communities (Germain, 1991:25). Although they are personal qualities, they are also dependent on the environment to develop and continue. It seems that these qualities are interdependent. However, relatedness is the central concept in this relationship (Germain, 1991:27). Relatedness refers to the ability to form attachments through friendship, family relationships and a sense of belonging to a supportive social network (Encyclopedia of Social Work, 1995:817). As children grow, friendships develop into social networks as well as networks of affiliations which can form important buffers to the impact of life stressors and serve as a coping resource. Social networks can, however, also be a negative force, for example in teenage drinking. Even though we have fewer attachments in adulthood, they last for a lifetime (Germain & Gitterman, 1996:15).

According to the Encyclopedia of Social Work (1995:818), a sense of competence is created by accumulated experiences of efficacy. These authors are of the opinion that it is important for social workers to be aware of this as it suggests that it is possible to motivate people to be effective in the environment even if their life circumstances have demotivated them. It also creates the opportunity for social workers and their clients to make use of

situations where purposive and effective action can be taken to improve the environment or the person's exchanges with the environment.

The term self-esteem represents feelings of competence, worthiness and respect which a person feels. This has a considerable effect on how a person thinks and behaves. Self-direction refers to the ability to take a degree of control over one's life. A person with self-direction will take responsibility for his/her decisions and actions, but at the same time show respect for the rights and needs of others (Encyclopedia of Social Work, 1995:818).

2.2.3.3.6 Habitat and niche

Habitats refer to the physical and social environments of human beings, such as their homes, the physical lay-out of their communities, setting of schools, workplaces, hospitals, places of religion and parks. According to the Encyclopedia of Social Work (1995:818) spatial and temporal behaviours are evoked by the nature of the environment and further contribute to the shape and colour of an environment. These behaviours influence social distance, privacy and interpersonal relationships in the family, group and community. Germain and Gitterman (1996:20) state that habitats that do not support the growth, health and social functioning of individuals or families, produce feelings of isolation, disorientation and helplessness. Chapter four describes the isolation and helplessness found among farm workers in the Western Cape. A high prevalence of Fetal Alcohol Syndrome is found in this group.

In addition, the social status of an individual or family in the community is described by the term 'niche'. Many communities have oppressive, marginalized, stigmatized and destructive niches that do not support human rights, needs or aspirations (Encyclopedia of Social Work, 1995:818). Germain and Gitterman (1996:20) add that community niches which interfere with health, morale and social functioning, are critical environmental elements in social work at community level. There can be no doubt that the habitats and

niches of many women with a high risk for having a child with FAS, do not contribute to positive person:environment relationships and are therefore critical elements which need to be addressed in the FAS prevention effort.

2.2.3.3.7 Vulnerability, oppression, power and pollution

The terms power, oppression and pollution relate back to the concept of dominance and refers to negative person:environment relationships. These concepts restrict human growth, health and social functioning and destroy healthy physical and social environments. Dominant societal groups may use their power to withhold power from others. This eventually leads to the oppression of vulnerable groups. When power is abused by dominant groups, it leads to social pollution such as poverty, unemployment, housing shortages, unsatisfactory education and health care systems. It, however, also causes technical pollution which in its turn causes the pollution of the ocean, air and food. Although disempowerment and social pollutions are mayor stressors for vulnerable groups, they eventually harm the entire population (Germain, 1991:24-25).

2.2.3.3.8 Life course

The life course concept refers to a person's development on different levels and in different environments from birth to old age. It acknowledges the fact that life stages and their development tasks are viewed according to the social norms of a specific society at a specific time. It can thus be said that these stages and their tasks are bound to culture and time (Encyclopedia of Social Work, 1995:819). The importance of the life course concept to this study is when and where, during the life course, prevention efforts should be focused.

2.2.3.4 Systems in the ecological perspective

Donald et al (2002:44), state that the ecosystemic perspective has developed from a mixture of ecological and systems theories. This perspective shows how individuals and groups at different levels of organization in the social environment are linked in dynamic, interdependent, and interacting relationships. These levels of the social environment or context are also described as the micro-, meso- and macrosystems or levels. These levels are nested within each other and interact with the system as a whole.

Microsystems refer to small systems such as the family, working environment or school in which people are closely involved in continuous, face-to-face interactions with familiar people. In such systems, patterns of daily activities, roles and relationships, as well as key interactions, occur (Donald et al, 2002:51). The microlevel includes the individuals' knowledge, attitudes, values, self-concept, self-esteem and skills-behaviour (Ott et al, 2004:3).

At mesolevel, the individuals' social networks and support systems such as family, school or work and friends interact with each other (Ott et al, 2004:3; Donald et al, 2002:51). The mesosystem can thus be described as a set of microsystems in association with each other. According to Donald et al (2002:52), happenings in the home, influences the way in which a child reacts at school as well as the way in which the parents respond at work. If, for example, a child experiences a lack of support at home, he/she may still experience love and understanding from a teacher or neighbour leading to the modification of the child's feeling of insecurity. Donald et al state that this modification can change the child's behaviour at home. Interventions at this level take the form of strengthening the social supports and networks, changing group norms and an elevated level of access to social supports and networks (Ott et al, 2004:3).

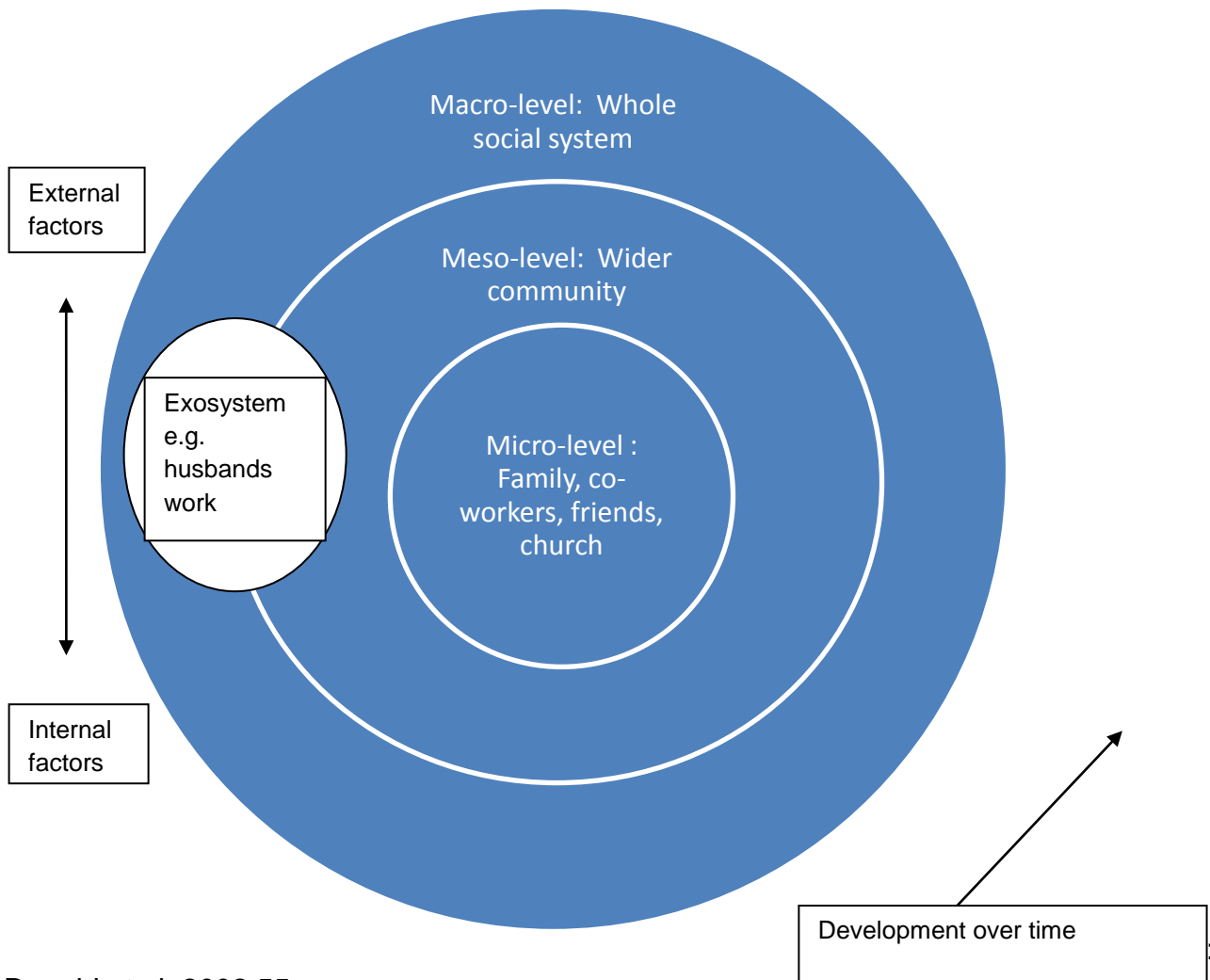
The macrosystem is described as a system that involves dominant social structure, beliefs and values which influence, and may in turn be influenced, by all other levels of the system (Donald et al, 2002:53). Macrosystems refer to community resources, neighborhood organizations, social and health services, governmental structures, relationships between organizations and formal and informal leadership practices. On this level intervention strategies refer to community development, empowerment, conflict resolution and mass media campaigns (Ott et al, 2004:3). Macrosystems therefore refer to the social system as a whole.

Netting et al (2004:78) state that in order to bring about macro-level change, the social worker and fellow workers must gain extensive knowledge of:

- The problem, need or opportunity (also known as the agent);
- The population involved (also called the host) and
- The community or society where change is needed (also referred to as the environment).

These three systems or levels are the most important systems which are used in the ecological perspective. Some authors, however, also refer to the exosystem and the chronosystem (Donald et al, 2002:51-53). According to Donald et al, the exosystem includes other systems which do not directly involve the person or subject. Despite this lack of involvement, the exosystem may still influence or be influenced by people who have close relationships with it in its microsystems. Chronosystems refer to all systems and their influence on each other, which are crossed by developmental time frames. All systems are in a continuous process of development and interact with a person's stage of development. It should therefore be clear that all social issues are inevitably interconnected (Donald et al, 2002:57).

The different levels can be visually explained by the following graph.



Donald et al, 2002:55

Figure 2.3 Levels and systems in the ecological perspective

2.2.4 Criticism on the ecological perspective

There is also criticism on the ecological perspective and the way it perceives the individual and their connectedness with their environment. Wakefield (1996:478) states that sometimes the most important factor in effective intervening is the ways in which things are not ecologically connected. He also states that ecological theory teaches us that living things adapt to each other in complex ways which may involve unexpected and casual connections. According to Wakefield (1996:478) an ecological approach to every case is unnecessary once we have accepted the above.

Wakefield (1996:479) also criticizes Germain's argument that the mission of social work is to improve the level of fit between a person and his/her environment. He argues that this is too general and encompasses virtually all human concerns. He further states that improving person:environment relationships for their own sake is not the goal of social work intervention, but it is a means to contribute to social justice (Wakefield,1996:480-481).

2.2.5 An ecological approach to the prevention of FASD

Viewed from an ecological perspective, the relationship between people and their environments are not always simple cause and effect relationships (Germain, 1991:16). This is important to note where prevention efforts aim to change these relationships, in order to improve the level of fit between the person and his/her environment. The social ecological perspective can undoubtedly benefit FASD prevention programs. According to Ott et al (2004:2), the comprehensive approach of the ecological perspective to prevention programs could fit these programs excellently. Ott et al (2004:2) contend that the ecological model specifically used in health promotion is multifaceted. This model targets social problems regarding the environment, behaviour and social policy that can encourage individuals with the health choices which they make.

A major goal of the ecological perspective is to enhance interaction between behaviour and the environment. Although the environment largely controls behaviour initially, changing the environment invariably leads to behaviour modification over time (Ott et al, 2004:3). Bloom (1979:334) clearly demonstrates that increasing the knowledge of an individual is not enough to modify behaviour even though a person may have critical information such as that smoking can shorten one's life span by between seven to twelve years. This knowledge alone is not enough to have a wide-spread impact on behaviour. He continues by saying that even having powerful prospective tools does not necessarily

influence decisions. By using the ecological perspective however, multiple layers of influence and behaviour are addressed. This provides a comprehensive approach for health promotion initiatives. According to Ott et al (2004:3) the ecological perspective links health promotion strategies which have individual behaviours as their target, to environmental influences on behaviour.

In order to enlarge the possibility of change, the Alberta Partnership on Fetal Alcohol Syndrome (1999) argues that a comprehensive prevention program for FAS should provide overlapping levels of reinforcement consisting of education as well as persuasion. These reinforcements should include incentives and interventions to prevent FAS. This view is confirmed by Ott et al (2004:3-4) who state that a comprehensive FASD program should include multiple and overlapping levels which focuses on the individual intrapersonal and interpersonal skills of the mother, the community, organizations and public policy. Ott et al (2004:4) continue by saying that although no single intervention is likely to eliminate FASD, it is expected that a comprehensive, multi-level prevention approach to FASD will be most effective.

This, however, raised the question if South Africa, and especially the Western Cape with its extremely high prevalence of FASD, is practicing these principles in its FASD prevention efforts.

2.2.6 Levels of intervention

In the ecological perspective, three levels of social context are identified, namely the micro-, meso- and macrolevels. Comprehensive intervention should therefore include interventions on all three levels. According to the Institute of Medicine (IOM) Model a comprehensive approach to the prevention of FAS is recommended (May et al, 2007:748). To apply a comprehensive approach to prevention programs, however, overlapping levels of reinforcement on different levels of prevention are needed (Stratton et al, 1996:113).

These authors also refer to the different levels of intervention as an intervention spectrum for FAS. Three levels of intervention where prevention fits into are identified:

- 1) Universal prevention. This level of prevention is also known as primary prevention and attempts to educate the broad public or an entire population group. Prevention at this level include public service announcements, posters, pamphlets, media advertisements and the discussion of contraceptive strategies with women (Hankin, 2002; Alberta Partnership on Fetal Alcohol Syndrome, 1999; Stratton et al, 1996:114). According to Stratton et al (1996:119) it seems that universal prevention activities have increased general knowledge about FAS and the consequences for the child who was prenatally exposed to alcohol.
- 2) Selective prevention, also known as secondary prevention, targets individuals with a significantly higher risk of bearing a child with FAS. Such methods of prevention include screening women of childbearing age who abuse alcohol and early prevention programs, such as counseling (May et al, 2007:248; Alberta Partnership for Fetal Alcohol Syndrome, 1999; Stratton et al, 1996:115). Stratton et al (1996:135) suggest that selective prevention during pregnancy can stop some women from drinking during pregnancy. There are, however, no clear indications to show which group of women will respond to these prevention efforts.
- 3) Indicated or tertiary prevention is defined as those prevention efforts which are directed at individuals with a predisposition for having a certain condition (Stratton et al, 1996:135). In FAS prevention this description refers to high risk women who are drinking heavily whilst pregnant or who are known to have a previous child with FAS (May et al, 2007:248). Prevention at this level includes brief interventions, case management or referral to inpatient or outpatient treatment centers (May et al, 2007:248; Hankin, 2002). Case management is described by May et al (2007:757) as

a key intervention and efficacious with women who have a high risk for giving birth to a child with FAS.

2.2.7 The Integrated Service Delivery Model

The Integrated Service Delivery Model (ISDM) of the Department of Social Welfare (South Africa, 2006:05) aims to create a clear understanding of the nature, scope, extent and level of social services by providing a comprehensive national framework. This framework can also integrate the different services of the department. Social work as defined in the ISDM (2006:15) being a professional service, delivered by a social worker with its goal the improved social functioning of people. Social functioning is further described in the ISDM (2006) as "...the role performance of an individual in its entirety at all levels of his or her existence, in interaction with other individuals, families, groups, communities and situations in his or her environment." This definition gives recognition to the fact that the individual, as well as the different systems in the environment, need social services in order to enhance social functioning. This view links with the views of the ecological perspective that individuals, as well as their environments, may need to change in order to enhance the person:environment fit.

The ISDM also states that it has adopted a developmental approach to service delivery which demands that services are intersectoral. This approach demands of the different government departments and sectors to integrate their services (2006:07). The desired outcome of the ISDM (2006:09) is to implement a comprehensive service that is efficient, effective, and of such a high standard that it will contribute to a self-reliant society. Self-reliance, as described in the ISDM (2006:10), is that which connects people with each other and their environment, to such an extent that they are more successful in their individual and collective efforts to create a better life. Although it is not recognized in the ISDM, these definitions point towards an ecological approach to developmental social

work. It also gives recognition to the view of the ecological perspective that the different levels of the social environment must be involved in the process of change.

According to the ISDM (2006:18), there is a growing awareness that policy must be co-ordinated across government departments and that a holistic approach is needed to address the complex and multidimensional social issues we are facing. This requires the different departments not only to understand the roles and responsibilities of each other, but also to integrate developmental efforts between departments as well as on the different levels of the social environment and by using all three levels of intervention. By putting these policies into practice, social workers and other role players will be able to provide comprehensive FASD prevention programs with multiple and overlapping levels.

2.3 CONCLUSION

This chapter described the need for theory in social work and how the ecological perspective with its principles and concepts can be used as the theoretical framework for FASD prevention. It gives recognition to the fact that criticism of the ecological perspective exists, but also describes how this perspective can be applied in FASD prevention by using the different levels of intervention in all levels of the societal environment.

The ISDM (2006:07) states that the social services sector has adopted a developmental approach to service delivery which demands that services are intersectoral and integrated. The ISDM (2006:18) also recognizes that social issues are often complex and multidimensional and therefore needs to be understood in a holistic manner. This is a step forward in the direction of using the ecological perspective to take a holistic view of the individual together with all the community and societal structures in which he/she is involved and by which he/she is influenced. Both the ecological perspective and the ISDM allow professionals to work together in a co-ordinated, integrated and comprehensive

manner in order to address issues that not only touches individuals, but also their communities and societies.

The ecological perspective also allows for prevention efforts on the primary, secondary and tertiary levels. Using the ecological perspective in developmental social work, including FASD prevention efforts, results in individuals being informed by the different levels of prevention, as well as through their social networks, families, community resources, governmental structures, community development organizations and mass media. By providing these multiple layers of influence on behaviour, the reach of developmental social work is extended to influence and change knowledge, attitudes, beliefs, skills and behaviour (Ott et al, 2004:3).

The next chapter will aim to create an understanding of the nature of FAS and the consequences that drinking during pregnancy has for the unborn child. It will describe the syndrome and the scope of effects with which the affected person has to live. This description will show that every level of functioning of the affected person is touched, and therefore burdens every level of society.

CHAPTER 3

THE PHENOMENON AND CONSEQUENCES OF FETAL ALCOHOL SYNDROME

3.1 INTRODUCTION

Although speculation about the toxicity of alcohol can be traced back for centuries, the term FAS and the knowledge of its devastating effects on human development, is relatively new and unknown to many. As research unfolds, the impact of prenatal alcohol exposure on physical appearance and health, brain development and behaviour, the real scope of the problem in the individual with FAS as well as in society in general, is revealed. Not only does prenatal alcohol exposure often leave the individual with FAS with serious health problems and brain damage, but it is also now proven to have an effect on their behaviour and everyday functioning (Bailey et al cited in Kodituwakku, Coriale, Florentino, Aragòn, Kalberg, Buckley, Gossage, Ceccanti & May, 2006:1551; Olsen et al cited in Hankin, 2002; Streissguth & O'Malley cited in Hankin 2002).

Epidemiological studies have shown that South Africa has the highest rate of fetal alcohol syndrome in the world (May et al, 2007:260; Viljoen et al, 2005:600). The Western Cape is especially seen as a very high risk community where almost one in ten children is affected by prenatal alcohol exposure. In the Bonnievale, Robertson, Ashton and Montagu-area the prevalence figure is, according to preliminary data of a current research study (May, 2011), between 94 and 129 per 1000 in first grade learners. South Africa is a complex society with a diverse population and scarce resources. This makes the societal burden of FAS which Hoyme, May, Kalberg, Kodituwakku, Gossage, Trujillo, Buckley, Miller, Aragon, Khaole, Viljoen, Jones and Robinson (2005:39) describe as "...immense in terms of suffering, lost productivity and excess medical and educational expenses", even more serious.

The aim of this chapter is to describe the phenomenon of FAS and thereby create an understanding of the devastating consequences of drinking during pregnancy. In order to do this, a look is taken at the history of FASD, the FASD spectrum and more specifically, at what FAS encompasses, the physical characteristics thereof, the mental consequences, the realities of brain damage and the associated behaviour problems it creates. The risk factors for FAS with the specific focus on how these risk factors impacts in the lives of farm laborers in the Western Cape will also be discussed.

3.2 THE HISTORY OF FASD

Fetal Alcohol Syndrome was recognized and described as a birth disorder of children born to alcoholic women in 1973 by Drs. Kenneth Jones and David Smith in Seattle, Washington. This diagnosis followed their examination of various children born to alcoholic mothers. The children examined had a constellation of the same distinctive facial features, growth retardation, central nervous system damage, a small head circumference and mental deficiency. Being dysmorphologists, Smith and Jones realized that a cluster of malformations occurring in association with one another, often signals the existence of a syndrome (Golden, 2005:1). However, the most important feature all the children had in common, were mothers who abused alcohol during pregnancy.

Smith and Jones therefore concluded that in utero alcohol exposure had in some way caused the developmental and physical abnormalities of the children examined (Golden, 2005:1). They came to the realization that alcohol was a teratogen or toxic substance for developing fetuses. This discovery was met with skepticism and in some cases even resistance. However, ongoing research showed the effects of drinking during pregnancy clearly. These effects included higher rates of still births, miscarriages and low weight babies (Golden, 2005:7). Streissguth, Barr, Kogan and Bookstein (1997:26) refer to the

work of Clarren and Smith who already described FAS in 1978 as the most frequent known teratogenic cause of mental deficiency in the western world.

Over the years the understanding of FAS has shifted to a diagnosis with multiple contingent meanings that emerged from scientific discoveries, popular beliefs, legal battles and popular narratives (Golden, 2005:11). According to Mattson and Riley (1997:3) there was a move from identifying the facial malformations such as a smooth philtrum, flat nasal bridge and short palpebral fissures in children with FAS, to understanding the underlying causes for alcohol's effect on the developing brain and behaviour of the child.

Further research by May, Jacobsen, Clarren and Viljoen, revealed that a wide range of factors determine the severity of the effect of alcohol use during pregnancy (May et al, 2008:739; May et al, 2007:748). By studying large groups of women during pregnancy, researchers gathered data about health-related habits such as smoking and diet, demographic information on age, parity (number of births) and various socio-economic factors. By applying sophisticated measures, researchers could tease out the effects of different levels of alcohol consumption and explore the interaction among the variables. This led to another critical finding, namely that if pregnant women who drink heavily reduce or halt their alcohol consumption, they have healthier babies (Golden, 2005:62). A later study in Washington concluded that both moderate and heavy alcohol exposure led to problems in the offspring of women who drink during pregnancy (Golden, 2005:63).

Animal studies unequivocally demonstrated that alcohol was a teratogen. Not only did these studies prove that alcohol was causing malformations, but also that it was a behavioural teratogen (Golden, 2005:63). Although FAS has been recognized since the late 1970's as a major known cause of developmental disability, it was only in the late 1980's that its lifelong implications were recognized (Streissguth et al, 1997:27).

Initially the Central Nervous System (CNS) effects of FAS were thought to be mental retardation and microcephaly. Ongoing research by researchers such as Streissguth et al and Sokol and Clarren revealed that FAS manifests with a wide range of disabilities (EBSCO Publishing, 2008a). This led to the realization that FAS was merely the most severe type of prenatal damage and that lesser levels of damage existed (May, 1995:1549). The FASD spectrum and a classification system for the diagnosis of FAS is discussed in the following section.

3.3 THE FASD SPECTRUM

The first descriptions of a distinctly recognizable pattern of malformations that could be attributed to maternal alcohol abuse which was described in the modern medical literature were in 1968 and 1973 (Hoyme et al, 2005:39). Initially, the central nervous system (CNS) effects of FAS were primarily seen as mental retardation or microcephaly (EBSCO Publishing, 2008c). According to Hoyme et al (2005:39) substantial progress has been made in developing specific criteria for defining and diagnosing FAS since those first descriptions.

Over time, it became clear that a diagnosis of FAS applied only to a relatively small proportion of children prenatally affected by alcohol. FAS was recognized as the severe end of a spectrum of deleterious effects where the complete phenotype is manifested, compared to no effects at the other end of the spectrum (Urban, Chersich, Fourie, Chetty, Olivier & Viljoen, 2008:877; Hoyme et al, 2005:39). The recognition of the need to describe children with less severe phenotypes of FAS, led to the term Fetal Alcohol Effects (FAE). This term was used to describe individuals who manifest some, but not all of the characteristics of FAS, but who were significantly exposed to alcohol prenatally (Hoyme et al; 2005:40).

Originally FAE was not meant to be a diagnostic category. It was a population-based term that indicated the existence of certain congenital abnormalities and development disabilities (Hoyme et al, 2005: 40). Unfortunately FAE was often misused to describe individual children with a variety of problems, solely on the basis of suspected alcohol use during pregnancy. Eventually FAE was used by some medical agencies as a medical diagnosis. This led to pressure on medical practitioners to make a diagnosis of FAE. According to Hoyme et al (2005: 41) this was not possible because each component of FAS, such as growth retardation or neurocognitive deficits, is non-specific, and only the combination of all components allow the definition of FAS. The term FAE did not allow for such a consistently recognized pattern in variants in their association with each other so that it could be recognized as a syndrome and applied to specific individuals. Over time it became necessary to develop a classification scheme which would make it possible to make a more precise and scientifically sophisticated diagnosis.

3.3.1 Classification scheme

A five-point classification scheme which offered experts a way to clarify what they knew about their patients and the patient's brain development, was introduced in 1996 by the Institute of Medicine (IOM). Three of the five categories were characterized by growth retardation, central nervous system abnormalities and evidence of behavioural and cognitive disorders. According to Golden (2005:163) these five categories of diagnosis were:

1. FAS with maternal confirmation;
2. FAS without maternal confirmation;
3. Partial Fetal Alcohol Syndrome (PFAS) with confirmed maternal alcohol exposure.

This category was developed to describe patterns of birth defects in children

prenatally exposed to alcohol who did not have all of the facial features or growth retardation seen in FAS.

4. Alcohol Related Birth Defects (ARBD) was distinguished by various anomalies associated with maternal alcohol consumption during pregnancy. This term was developed to describe the physical anomalies, rather than the effects on the brain, associated with prenatal alcohol exposure (EBSCO Publishing, 2008a).
5. Alcohol Related Neurodevelopmental Disorders (ARND) refers to individuals with evidence of central nervous system abnormalities as well as behavioural and cognitive disorders. This diagnosis does not require the presence of facial or other physical abnormalities. It suggests that, even if an individual does not meet the diagnostic criteria for FAS, it is still clear that alcohol has affected his/her behaviour.

These categories indicate that FASD forms a continuum with no effects on the one end, to fully developed FAS where the complete phenotype is manifested, at the other end.

Criticism that the IOM classification system was vague, led to the development of what became commonly known as the Washington system. This system used 22 diagnostic categories which made it confusing and impractical for routine use in clinical settings (Hoyme et al, 2005: 41). The Washington system however, had positive effects such as an attempt to objectively define the facial phenotype of FAS. Astley and Clarren (2001:149) created a lip/philtrum guide to assess the structure of the upper lip and philtrum, which is the vertical groove between the upper lip and the nose. In this system, the thinness of the lip and the smoothness of the philtrum are assessed separately by comparing the child's face with the guide consisting of five photos as given in Hoyme et al (2005:42).

Since both the IOM model and the Washington system had shortcomings, Hoyme et al (2005: 43) proposed a clarification of the IOM model in which the term FAS (with or without

confirmed maternal exposure) must have abnormalities in all domains, i.e. facial dysmorphic features, growth and brain growth or structure. For a diagnosis of PFAS (with or without confirmation of maternal alcohol exposure), children must display typical facial dysmorphic features and abnormalities in either growth or central nervous system structure or function (Hoyme et al, 2005: 43). For a diagnosis of ARND or ARBD, maternal alcohol exposure must be documented. The diagnosis of ARBD must then apply to alcohol affected children who have typical faces, normal growth and development and specific structural anomalies (either major physical malformations or a pattern of minor physical malformations). ARND is meant to apply to children who display a characteristic pattern of behavioural or cognitive abnormalities typical of prenatal alcohol exposure (Hoyme et al, 2005:43).

These classification systems clearly demonstrate the range of prenatal alcohol effects as a continuum with no effects at the one end and full developed FAS at the other end. It does however not mean that the brain dysfunctions of individuals with ARND or PFAS are not as severe as those of a person with FAS. Whereas drinking early in pregnancy may lead to facial anomalies, drinking throughout pregnancy can affect the brain (EBSCO Publishing, 2008a). The term Fetal Alcohol Spectrum Disorders (FASD) (See Figure 3.1) is therefore used as an umbrella term to describe the effects that can occur in an individual who has been prenatally exposed to alcohol, encompassing FAS, Partial FAS (PFAS), Alcohol Related Birth Defects (ARBD), Alcohol Related Neurodevelopmental Defects (ARND) and other adverse outcomes.

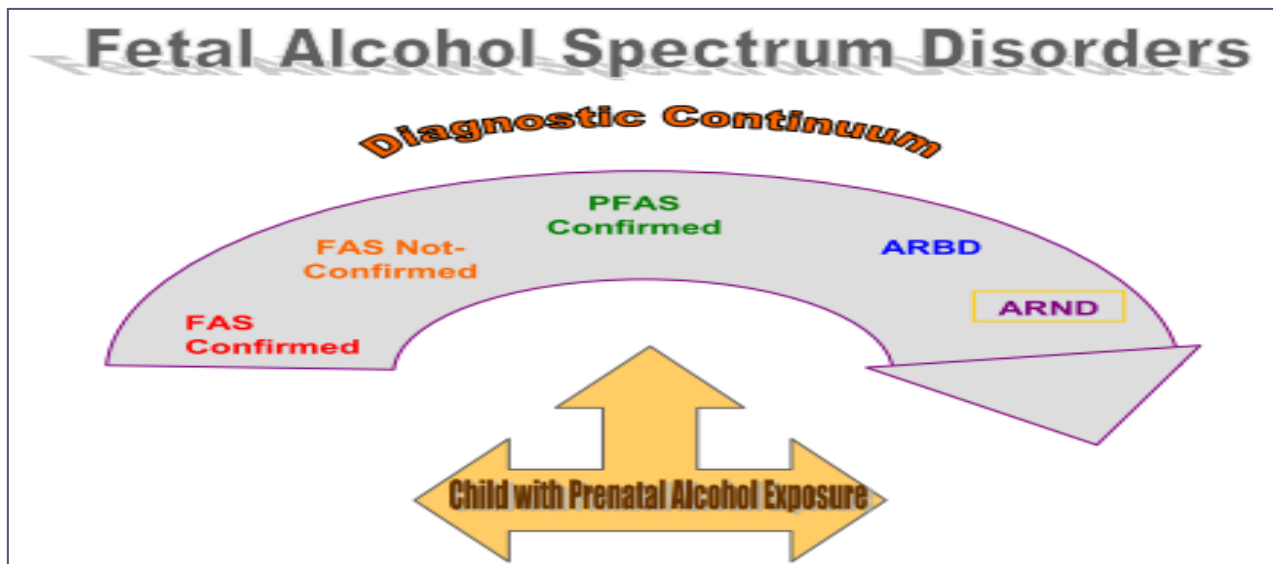


Figure 3.1 The FASD spectrum
Source: Wendy Kalberg (2011)

All forms of FASD are linked to maternal drinking. The nature of birth defects consistent with FASD, are caused by the timing of maternal drinking, as well as quantity and frequency of drinking (May, 1995:1551-1553). These three factors determine the nature and extent of the damage caused by maternal drinking. The outcomes of maternal drinking and the consequences, with which the affected person has to live, will be discussed hereafter.

3.4 THE CONSEQUENCES OF FASD

Alcohol intake during pregnancy can have a range of detrimental consequences for the developing fetus (Hankin, 2002). These consequences vary from physical malformations to cognitive dysfunction and behavioural effects (Hoyme et al, 2005:40; Adnams, Kodituwakku, Hay, Molteno, Viljoen & May, 2001:557; Mattson & Riley, 1997:4). The following section of this chapter will describe the physical, mental and behavioural effects prenatal use of alcohol has on the child born with FASD.

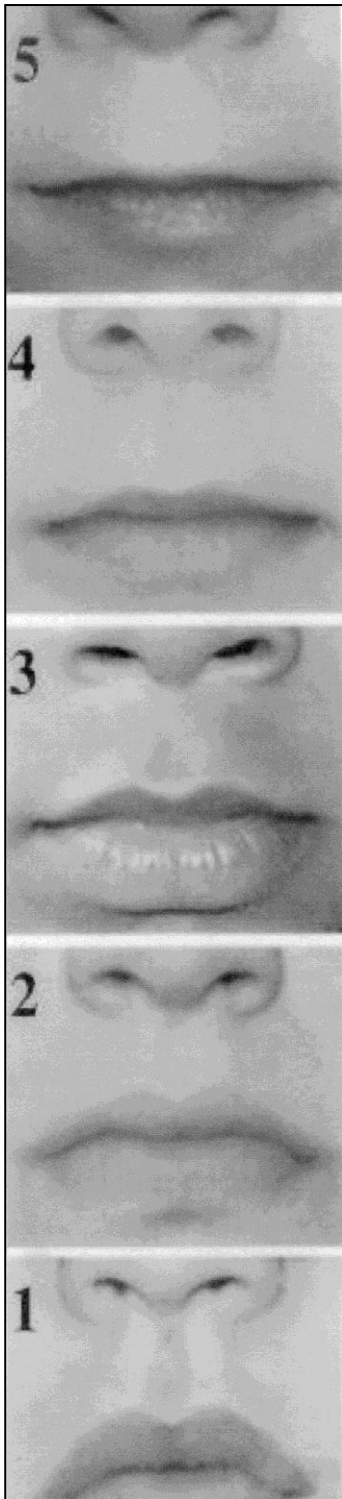
3.4.1 Physical consequences

The diagnosis of FAS is, despite a lot of discussion, much the same as originally proposed by Jones and Smith in 1973. According to Mattson and Riley (1997:3), the triad of **features** that is needed for a **diagnosis** of FAS is:

- 1) Pre- and/or postnatal growth deficiency;
- 2) A distinct pattern of craniofacial malformations;
- 3) Central nervous system (CNS) dysfunction.

Growth deficiency refers to weight and height below the tenth percentile. Growth deficiency, for either height or weight or both, is present at birth, and is a permanent condition. This is due to altered prenatal development and as a rule not to postnatal nutritional status. Although some females gain weight in adolescence due to hormonal changes, a short stature, slight build and small head remains characteristic in the person with FAS, even into adulthood (Mabelebele, 2008:2; Streissguth, 2000).

The pattern of **craniofacial malformations** includes four characteristic physical features:



1) A long, smooth philtrum (the vertical groove between the nose and upper lip), is formed because the divot or groove between the nose and upper lip flattens due to prenatal alcohol exposure.

2) The upper lip also thins due to prenatal alcohol exposure. The line between the lip and the skin of the face is known as the vermilion border. A person with FAS has a thin vermilion border. The lip and philtrum are compared to a standardized lip/philtrum guide developed by the University of Washington.

3) Short palpebral fissures. This refers to the width of the eye opening. The palpebral fissure is measured between the inner and outer corners of the eye. The palpebral fissures shorten with increased prenatal alcohol exposure. Palpebral fissures are measured in millimeters with a clear ruler.

4) A flat midface with a flat nasal bridge

Figure 3.2 Lip philtrum guide
Source: Hoyme et al (2005:45)

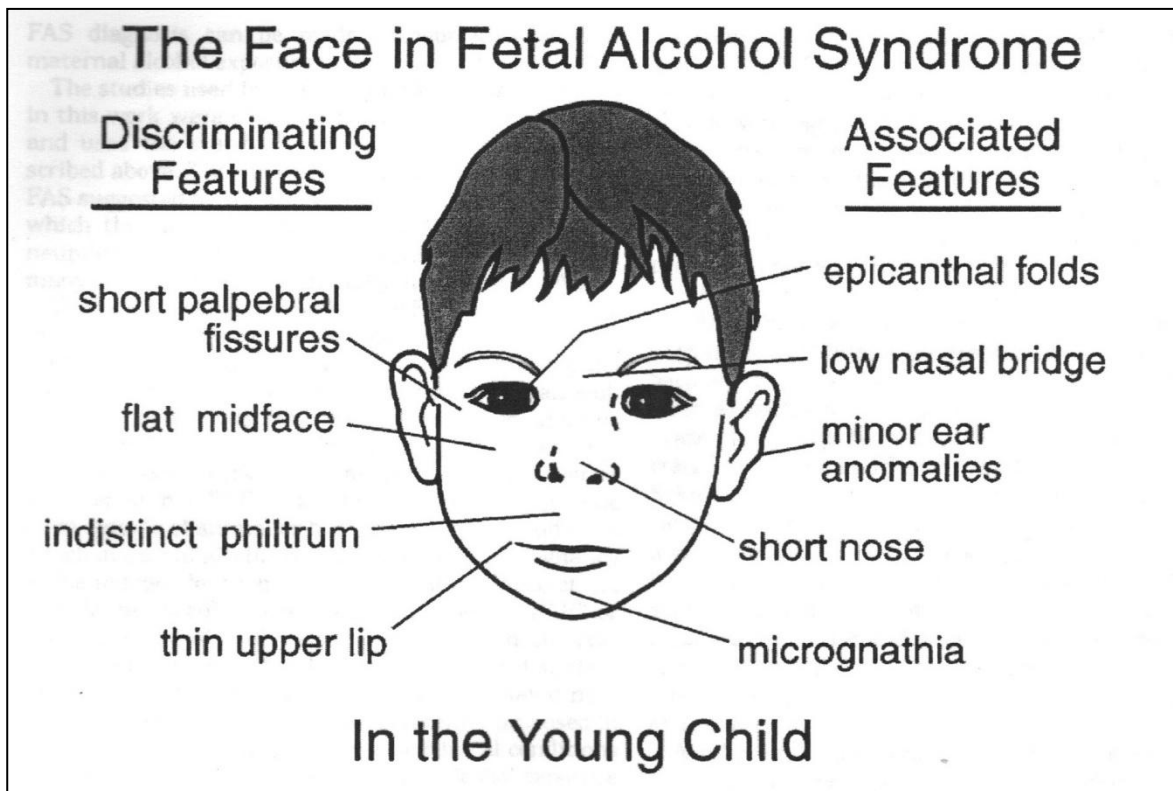


Figure 3.3 The face in fetal alcohol syndrome

Source: Sampson et al (1997:318)

Facial features in the young child include a relatively short nose with upturned (anteverted) nostrils and a small chin or protrusion of especially the lower jaw, known as prognathism. Various eye problems may occur, including drooping eyelids (ptosis) or crossed eyes (strabismus). One of the distinguishing eye features is epicanthal folds. Epicanthal folds are skinfolds which cover the inner corners of the eye. Problems with vision mostly entailing nearsightedness, also occurs (Hoyme et al, 2005:45)

Minor anomalies of the ear, i.e. railroad track ears, are also found. Railroad track ears indicate that the upper part of the ear is underdeveloped, folded over, and parallel to the curve beneath it. This creates the impression of a railroad track. Auditory problems such as conductive hearing loss as well as neurosensory hearing loss, can occur (Hoyme et al, 2005:45).

A small head circumference (microcephally) is often present and is a reflection of a smaller brain size. Other major congenital malformations such as heart defects, heart murmurs, cleft lip and palate and malformations of the limbs and joints and scoliosis are often found, but are not necessary for a diagnosis of FAS (Streissguth, 2000). The author also refers to malformations of the kidneys such as 'horseshoe kidney' where the kidneys fuse together to form a horseshoe-shape. The non-development of a kidney or abnormally small kidneys is also noted. Various other minor anomalies can be found, including malformations of the fingers and toes. Clinodactyly is a malformation of the fifth finger which causes the fifth finger to curve towards the fourth finger. It is sometimes called "fifth finger clinodactyly." Clamptodactyly, which is a permanent flexion contracture of a finger or toe, is also found. Hypoplastic or underdeveloped nails and altered palmar creases shaped like a hockey stick and ending between the second and third fingers, are often found (Hoyme et al, 2005:45).

In general, the physical features associated with FAS, become less striking after puberty. The growth of the nose and chin normalizes and some girls gain weight. However, a small head circumference and short stature may stay as indicators (Streissguth, 2000). Despite the fact that the physical features may be less striking in adolescence and adulthood, the primary concern in prenatal alcohol exposure, is the changes caused in the brain. These changes not only affect the structure of the brain, but also impair intellectual functioning. Behaviour is also affected (EBSCO Publishing, 2008a). This damage is known as **central nervous system dysfunction**. Central nervous system dysfunction will be discussed in detail under the headings of mental consequences, intellectual impairment and behaviour.

3.4.2 Mental consequences

Children with FAS have complex brain dysfunction combining structural damage to the brain, neurological damage and certain aspects of cognitive impairment as well as behavioural disturbances (Sampson et al, 1997:318). This damage causes children to perform less competently than normal children on the same developmental level on a wide range of tasks (Kodituwakku et al, 2006:1551). Since so many regions of the brain are affected by prenatal alcohol exposure, a wide range of disturbances can be exhibited. These deficits are persistent into adulthood (EBSCO Publishing, 2008a).

3.4.2.1 Structural damage to the brain

In addition to studies about the physical effects of prenatal alcohol exposure, researchers (Mattson et al cited in EBSCO Publishing, 2008a; Mattson & Riley, 1997) have studied animal as well as human patients, to understand the brain dysfunction that occurs in individuals with FAS. Many of the structural changes found in animals were also detected in humans. Golden (2005:164) states that the “Tenth Special Report to Congress on Alcohol and Health” declared that the brains of individuals with FAS did not develop normally. This report also stated that certain cells in the brain were not in their proper locations and tissue had died off in some regions. These cells may therefore not function properly.

According to Kalberg et al (2006:2038), deficient brain growth couples with cell death and suppresses cell generation. It also fails or interrupts cell migration. The damage caused by deficient brain growth manifests in various ways (Kalberg et al; 2006:2038).

Mattson and Riley (1997:10-12) state that children with FAS have a smaller brain size than can be expected in a normal child, a smaller head circumference and reduction in the size of the cerebellum as well as damage in the brain structures involved in the sense of smell.

These authors have noted that certain ventricles in the brain may be small, enlarged or even absent. According to Mattson and Riley (1997:10-12), cellular damage as well as shrinkage can appear in the basal ganglia and the corpus callosum, a large fibre tract that connects the two hemispheres of the brain. Communication pathways between the two hemispheres of the brain can therefore be damaged or even absent.



Figure 3.4 Normal brain versus FAS brain

Source: Kellerman, 2010.

These consequences of maternal alcohol consumption are irreversible and cause lifelong problems with primary, as well as secondary, disabilities. According to Streissguth et al (1997:27), *primary disabilities* are the functional deficits that reflect the central nervous system dysfunctions inherent in the FAS diagnosis, while *secondary disabilities* are those that arise after birth and could, presumably, be ameliorated through appropriate interventions and better understanding. It is, however, the secondary disabilities that can create longstanding problems in many spheres of life, such as disturbances in work, school and social functioning (EBSCO Publishing, 2008a).

Mattson and Riley (1997:10-11) state that different studies prove that the nature of brain damage caused by prenatal alcohol exposure is extremely variable. They are of the opinion that it is difficult to quantify the teratogenic effect of alcohol on the developing brain

and that details of structural brain damage are therefore limited. Although no doubt exists about the fact that high levels of alcohol have an effect on the developing brain, it is as yet uncertain if it causes a specific pattern of brain damage (Mattson & Riley, 1997:10-11). There is however unanimity that central nervous system damage can be associated with cognitive impairment as well as neurobehavioural deficits.

3.4.2.2 Cognitive impairment

According to Mattson and Riley (1997:4) the behavioural and cognitive effects of prenatal alcohol exposure are among the most devastating consequences of such exposure. Adnams et al (2001:557) state that researchers have found weaknesses in most areas of cognitive and emotional functioning in children substantially exposed to alcohol prenatally. A wide range of disturbances can therefore be exhibited. Areas such as intelligence, motor co-ordination, memory, complex problem solving, and aspects of number processing, visual-spatial reasoning, verbal learning, behaviour, emotional functioning and abstract thinking are affected.

This is confirmed by Lutke (1997:186), who says that the simultaneous use of memory, cause and effect, generalization of information and time skills allow us to make logical, rational and sensible decisions about what should be done, when and by whom it should be done. Furthermore FAS has a critical impact on one's ability to make sense of the environment, to communicate efficiently, and to solve problems (Lutke, 1997:186). Once the fall-out from problems that require abstract thinking and memory are understood, it becomes very obvious that people with FAS will have great difficulty in making sense of the world, even if they do not have problems with attention and activity. According to Lutke (1997:186) there are connectors missing from the brain of the person with FAS. These connections are crucial for normal cognitive functioning. This statement gives a

clear message that no therapy or education can replace what drinking during pregnancy has taken from the child with FASD.

3.4.2.3 Intellectual functioning

According to Mattson and Riley (1997:4) FAS is seen by many researchers as the leading cause of mental retardation in the western world. Although mental retardation is not a requirement for a diagnosis of FAS, general intellectual functioning is often affected. Aronson (1997:23) is also of the opinion that people with FAS and FAE can present without mental retardation, but still have significant central nervous system impairment and dysfunctional behaviours.

Mattson and Riley (1997:4-5) refer to surveys by various researchers between 1974 and 1996 which showed an average mean IQ of between 65.73 and 72.26 in reported FAS cases. Their conclusion is that the IQ of the average person with FAS falls in the borderline of mental retardation. A Swedish study of the children of 30 alcoholic women also revealed that, compared to population norms, these children had lower IQ's and increased signs of brain damage. At more or less the same time a Belfast maternity hospital reported that of the 23 babies born to heavy drinking women, only one had no abnormalities as presented in FAS babies. Studies of alcoholic women revealed that a sizeable proportion of these women gave birth to physically and mentally damaged children (Golden, 2005:61).

Mattson and Riley (1997:5-6) refer to an earlier study in which an evaluation of children with confirmed histories of prenatal alcohol exposure - with few, if any, physical anomalies required for a diagnosis of FAS - showed IQ scores in the low 80's. Children with full developed FAS however, showed IQ scores in the low to mid 70's. From the above study it appears that children with FAS are intellectually more affected than those with confirmed

prenatal alcohol exposure who lacks the craniofacial anomalies. According to Mattson and Riley (1997:5-6), this suggests the existence of a “dose-response” relationship.

Kalberg and Buckley (2006:60) are of the opinion that cognition-based executive functioning (EF) limitations can affect the child’s ability to understand and hold in memory the specific steps of a given task. These children therefore struggle with sequences inherent in a daily routine, the steps of social exchange and learning sequences. The specific steps of any task, however simple and obvious it may seem, must then be taught and learned by repetition. This study by Kalberg and Buckley confirms earlier findings by Kodituwakku, Kalberg and May (2001:198) that children who have been exposed to alcohol prenatally may be impaired on tasks that measure competencies associated with EF, even when the exposure was moderate.

3.4.2.4 Attention deficits

Individuals with FAS and ARND often have problems investing, organizing and maintaining their attention, as well as shifting attention between tasks. In a study by Nanson and Hiscock (cited in EBSCO Publishing, 2008a), attention deficits similar to children with attention deficit disorder have been found in children with FAS. The earliest studies noted an increased “non-alert state” in infants with prenatal alcohol exposure (Mattson & Riley, 1997:9). Attention deficits continue throughout childhood and into adolescence. Studies with adolescents showed that they made impulsive errors on vigilance tasks requiring focus and sustained attention (EBSCO Publishing, 2008a). This can cause poor functioning in work- and school situations because they are easily distracted by extraneous events and lose track of the task at hand. They also forget obligations which may result in disruption of their education or termination of employment (EBSCO Publishing, 2008a).

3.4.2.5 Abstraction and conceptual thinking

Lutke (1997:182-183) is of the opinion that children with FAS have great difficulty with abstraction and conceptual thinking. Problem-solving is therefore problematic. According to Lutke the brain of a normal person automatically sorts through what it knows in a particular situation and then comes up with the right plan of action. In the person with FAS, however, understanding and applying concepts and abstractions to particular situations is neither an automatic, nor a consistent process (Lutke, 1997:183).

Lutke (1997:183-184) claims that people with FAS often have problems with the storage, integration and retrieval of information. According to Lutke the mind of a person with FAS stores information in a haphazard fashion with no predictable order. He argues that even if information is stored correctly, it appears to 'get lost,' only to reappear later, unexpectedly, right where it should be. This leads people who do not understand FAS to believe that these behaviours and actions are deliberate (Lutke, 1997:183-184).

A by-product of this problem is lying. The person with FAS originally stores information wrongly and then also interprets it wrongly due to their distorted perception of, and relationship with, the environment (Lutke, 1997:184). This is consistent with the findings of Kodituwakku et al (2006:1552) who say that the behavioural problems of children with FAS are particularly in the realm of social deficits.

3.4.2.6 The relationship between cause and effect

According to Lutke (1997:184) the ability to understand the relationship between cause and effect can be completely missing or available only sporadically, it can be faulty, or not an automatic process for people with FAS. The author reasons that a normal person has the ability to link cause with effect and not only remember those links, but has the ability to generalize information and also use it in other situations. This ability makes it possible to

be flexible, as well as to understand different possibilities and to choose between these possibilities. Lutke (1997:184) continues saying that if one does not have the ability to see and anticipate different possibilities, one's ability to make sound choices based on possible outcomes will be altered. This author compares people with FAS to someone who do not have all the pieces of a puzzle and reasons that if one piece of a puzzle is changed, it can create a completely different puzzle. Lutke (1997:184) further states that when past experiences and social rules are not linked to other situations, everything that happens is unheard of. This means that if a person with FAS does not show remorse for a certain action, it may simply be "...because the 'possibilities' piece of the equation is not there" (Lutke, 1997:184). This view is supported by Kalberg and Buckley (2006:281) who describe acting before considering the consequences of behaviour, as a hallmark of children with FAS. This inability to understand cause and effect has serious consequences for social interaction, especially as far as behaviour and social interactions are concerned (Kodituwakku et al, 2006:1552). It further makes adjustment and functioning in an ever changing environment almost impossible and impacts on the individual's motivation.

3.4.2.7 Problems with motivation

The ability to reflect is, according to Lutke (1997:185), a very complicated function that requires interrelated thought processes. Any fault in these processes alters the way a person perceives the relationship between people, things or events. If this function is missing, motivation is a problem – especially when the behaviours have no immediate or concrete outcomes. Lutke (1997:185) states that if a person does not have the ability to reflect, to consider different possibilities or to imagine results and consequences, there is no reason for motivation.

For this reason, Kalberg and Buckley (2006:64) recommend the use of functional routines and structured teaching for the FASD population. This provides clarity and organization on which the child will eventually come to depend. According to Kalberg and Buckley (2006:64) predictability helps the child to feel comfortable and safe and it also provides external support that assists the child towards better organization.

3.4.2.8 Problems with time

According to Lutke (1997:185), time is an anchor that places humans in relationships with others and their environment. This anchor provides us with the stability to know where we are and who we are. In the person with FAS however, this anchor has no secure hold and the line of time simply unravels with no clear beginning and no end. That explains why people with FAS may show up late for work, forget appointments, don't know what day of the week it is, forget to eat and seem unable to perform a task of which they already know the steps. Lutke (1997:185) concludes his argument by saying that most people have an internal clock which allows them to "sense" time, but that people with FAS do not possess this clock.

3.4.2.9 Speech and language disturbances

Speech delays or impediments have often been found in children with FAS. It seems that both receptive and expressive deficits exist. Truman Coggins of the Department of Speech and Hearing at the University of Washington said in a paper delivered at a conference on FAS, that parents' report about children with FAS indicates that social communication is their most threatening problem. Children with FAS are, according to Bookstein (1997:204-205), talkative but not communicative –talkative, but typically off the mark. This author also refers to their poor judgment and social skills, lack of social savvy and comprehension of the motives of others. This is confirmed by Kalberg and Buckley (2007:281) who are of the opinion that, although children with FAS may have relatively

good vocabularies and are loquacious, their level of comprehension often lags behind their expressive abilities. In this way they may seem more capable than they actually are.

In a study by Mattson, Riley, Delis, Stern and Jones in 1996 (Mattson& Riley, 1997:8), they found that children with FAS have difficulty learning and recalling a series of words after short and long delays. Although their recall of the learned material was relatively good, their pattern of recall suggested deficits in encoding verbal material. The number of intrusions, perseverations and false positive errors made by the children was also consistent with a response inhibition deficit found in children with FAS (Mattson& Riley, 1997:8). Kalberg and Buckley (2006:281) agree with this when they state that these children find it difficult to take in new verbal information through auditory channels and holding that information in memory for use at a later time. Recalling the information later, following directions given in verbal form and then generalizing that information, seems to be a further problem.

3.4.2.10 Visual-motor integration

By using various tests such as Beery's Developmental Test of Visual-Motor Integration (VMI) and the Global-Local Test, researchers determined that children with FAS or FAE were significantly impaired in delayed recall for information involving special location. According to Mattson and Riley (1997:7) it was, however, not entirely accurate for immediate recall of information involving spacial location. The children could recall a series of objects, but not their locations. Deficits in the processing of global versus local visual features were also found. It was determined that alcohol-exposed children focused on the global aspects of visual stimuli at the expense of the local details when they had to recall a hierarchical stimulus. Even if the memory component of the hierarchical stimulus was removed and the child had the hierarchical stimuli in full view, the alcohol-exposed

children had difficulty copying the local aspects of the figure. This was not due to visual problems since it only occurred when hierarchical stimuli were present.

3.4.2.11 Motor delays

Most studies of motor development and motor skills suggest impairment in children prenatally exposed to alcohol. In the first description of children with FAS, Jones, Smith Ulleland and Streissguth (Mattson and Riley, 1997:9) noted delayed motor development and fine motor dysfunctioning. According to these authors, this may indicate cerebellum dysfunction. Kalberg, Provost, Tollison, Tabaschnick, Robinson, Hoyme, Trujillo, Buckley, Aragon and May (2006:2038) refer to studies by Roebuck in 1993, who found balance deficits in children who were prenatally exposed to alcohol. Roebuck held the opinion that these balance deficits could partly be explained by damaged central brain processing. Kalberg et al (2006:2039) support this view by saying that motor delays often occur in children with developmental delays and mental retardation, both of which are common in children with FAS.

A study by Kalberg et al (2006:2040) found that only 43% of children with FAS studied, showed average gross motor abilities, while just 7% had average fine motor skills. Fine motor skills were also significantly more delayed than gross motor skills. Kalberg et al (2006:2043) conclude by stating that although the fine motor delays in children with FAS do not necessarily parallel the cognitive and/or language delays, these motor delays may be related to specific neurobehavioural deficits that affect the fine motor skills.

According to Mattson and Riley (1997:9), decrements in motor speed in precision, finger tapping speed and grip strength were also found. Individuals with FASD may therefore appear clumsy, especially with task requiring fine motor functioning.

From the effects of mental damage listed, it is clear that people with FAS have difficulty learning new information, recalling learned material as well as applying the learned material in life situations. This has serious implications for their functioning in almost all situations.

3.4.3 Behavioural consequences

Through animal studies, researchers found that alcohol was the cause of physical problems, as well as a behavioural teratogen. Some of the effects they observed were hyperactivity, learning deficits and sleep disturbances in newborns (Golden, 2005:63). Proving the behavioural effects of alcohol as a teratogen is complicated. Epidemiological studies suggest that most individuals exposed to high doses of alcohol prenatally also had exposure to maternal malnutrition, tobacco, the effects of maternal stress, obstetric complications and low birth weight. Each of these conditions has been shown to have behavioural effects. Additionally, environmental factors such as poverty, abuse, neglect, family disruption as well as genetics, played key roles in shaping behaviour (Golden, 2005:162).

This was partly clarified by scientific studies during the 1980's suggesting that prenatal alcohol exposure caused particular kinds of brain damage. The children exposed to alcohol were described as less attentive, less compliant and more fidgety than children who were not prenatally exposed to alcohol (Golden, 2005:162). This author also suggests that the brain impairments caused by prenatal alcohol exposure causes lifelong problems in social adjustment, anger control, understanding the motives of others, refraining from alcohol and drugs themselves and the inability to resist involvement in illegal activities. Many had difficulty living independent lives as adults and keeping their jobs (Golden, 2005:162).

In one Swedish study parents and teachers said the children had problems with learning, impulse control and aggression. Although an early diagnosis, special education, social services and a stable home environment limited the expression of secondary disabilities, many individuals still needed social support services to function effectively. Even early intervention could not fully erase the damage done by alcohol prenatally (Golden, 2005:164). According to Golden (2005:164) researchers in West Berlin concluded that a healthy environmental and educational influence did not help children with FAS achieve intellectual growth and that these individuals struggled with a wide spectrum of behavioural and cognitive disorders.

This confirms the earlier findings of Aronson in 1990 where interviews with the primary caretakers of children with FAS suggested that the most significant problems the children had, was a lack of impulse control and bursts of aggression. It seemed that the children did not realize the consequences of their behaviour. They also demanded much more attention than normal children (Streissguth, 2000).

Hoyme et al (2005:45) refer to the work of Streissguth, Bookstein and Barr who, in 1998, described the behaviour of children with FASD. According to these authors children with FASD have problems with communication. This includes talking too much and/or too fast and interrupting others. Emotional lability causes problems such as rapid mood swings and overreacting. Problems are also experienced with difficulty in completing tasks, deficient social interactions e.g. lack of awareness of consequences of behaviour, and poor judgment. Hyperactivity and sleep disturbances are also common. Some children with FASD experience difficulties with personal organization and they often lose or misplace their possessions.

Kodituwakku et al (2006:2552) are in agreement with these opinions. They state that children with FAS show a cluster of behavioural problems including impulsivity,

disorganization, short term memory problems and difficulty understanding subtle social cues. They also agree that children with FASD have behavioural problems, particularly in the realm of social deficits. Kodituwakku et al (2006:2588) suggest that it is not the child's hyperactivity that causes problems, but rather the child's inattentiveness. Inattentiveness is often associated with slow information-processing, as failure to comprehend leads to impaired persistence. Furthermore, inattentiveness is also related to lower mathematics and language performance.

Even though the facial features of a person with FAS tends to become normal as they grow into adulthood, the cognitive effects do not diminish as the child grows older. Psychosocial problems and anti-social or aggressive behaviour are commonly observed in adolescents with FAS, whereas adults with FAS experience difficulty with adapting, independent living and self-sufficiency (Streissguth, 2000).

As yet, a behavioural phenotype of FAS has not been defined. O'Brien and Yule (cited in Kodituwakku et al, 2006:2552) describe a behavioural phenotype as a characteristic pattern of motor, cognitive, linguistic and social observations that is consistently associated with a biological disorder. However, the vast influence of FASD can clearly be seen in the tables 3.6, 3.7 and 3.8 which lists the physical, mental and behavioural consequences of FASD.

Table 3.1 The physical consequences of FASD

<p>1. <u>Physical</u></p> <p>1.1 <i>Growth deficiency</i> Small for age in height, length and weight Microcephaly (small head circumference)</p> <p>1.2 <i>Eyes</i> Epicanthal folds Ptosis (drooping eyelids) Strabismus (crossed eyes) Short palpebral fissures (width of the eye opening) Vision problems</p> <p>1.3 <i>Heart</i> Heart defects Heart murmurs</p> <p>1.4 <i>Other malformations</i> Malformation of limbs and joints Scoliosis Kidney malformations i.e. horseshoe kidneys</p>	<p>1.5 <i>Facial features</i> Long, smooth philtrum Thin upper lip Flat midface with flat nasal bridge Short nose Anteverted nostrils Protrusion of the lower jaw Cleft lip and palate</p> <p>1.6 <i>Ears</i> Railroad track ears Auditory problems</p> <p>1.7 <i>Hands</i> Malformations of fingers and toes i.e. clinodactyly and camptodactyly Underdeveloped nails (hypoplasia) Altered palmar creases i.e. hockey stick palmar creases</p>
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Sources: May et al, 2009:176-192; EBSCO Publishing, 2008a; May et al, 2007:264; Chambers, 2006:4-12; Kalberg et al, 2006:2037-2045; Hoyme et al, 2005:44-45; Kodituwakku et al, 2001:192-198; Kodituwakku et al, 2001:1551-1561; Sampson et al, 1997:320.

Table 3.2 The mental consequences of FASD

<p>2. <u>Mental</u></p> <p><i>2.1 Structural damage to the brain</i> Migration of cells Smaller brain size Smaller cerebellum Shrinkage in basal ganglia and corpus callosum Damaged or absent communication pathways</p> <p><i>2.2 Motor co-ordination</i> Fine and gross motor delays Balance deficits</p>	<p><i>2.3 Cognitive impairment</i> Intelligence Mental retardation Memory Ability to understand Learning sequences i.e. steps of a task Abstract thinking Complex problem solving tasks Number processing Visual-spatial reasoning Verbal learning Attention deficits (maintaining and shifting attention between tasks) Inability to understand the relationship between cause and effect Inability to generalize knowledge to other situations Impulsiveness Lack of motivation Inability to understand the concept of time Speech and language impediments Lack of comprehension of what they say</p>
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Sources: May et al, 2009:176-192; EBSCO Publishing, 2008a; May et al, 2007:264; Chambers, 2006:4-12; Kalberg et al, 2006:2037-2045; Hoyme et al, 2005:44-45;; Kodituwakku et al, 2001:192-198; Kodituwakku et al, 2001:1551-1561; Sampson et al, 1997:320.

Table 3.3 The behavioural consequences of FASD

<p>3 Behaviour</p> <p><i>3.1 General</i></p> <ul style="list-style-type: none"> Hyperactivity Sleep disturbances in newborns Inability to understand the consequences of behaviour Disorganization Losing or misplacing possessions Mood swings Overreacting Difficulty completing tasks Inattentiveness Lying Inappropriate sexual behaviours 	<p><i>3.2 Social behaviour</i></p> <ul style="list-style-type: none"> Problems in social adjustment Anger control problems Aggression Trouble understanding the motives of others Misuse of alcohol and drugs Involvement in illegal activities Talking too much or too fast Interrupting others Poor judgment Difficulty understanding subtle social cues
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Sources: May et al, 2009:176-192; EBSCO Publishing, 2008a; May et al, 2007:264; Chambers, 2006:4-12; Kalberg et al, 2006:2037-2045; Hoyme et al, 2005:44-45;; Kodituwakku et al, 2001:192-198; Kodituwakku et al, 2001:1551-1561; Sampson et al, 1997:320.

Although the above tables list most of the known effects of FASD, each of the components listed, e.g. growth retardation, are non-specific. Only a combination of these components allows the definition of FAS (Hoyme et al, 2005:41). Furthermore, FASD is always a diagnosis of exclusion. Many other syndromes have similar characteristics and a FASD diagnosis cannot automatically be assigned to a child with disabilities. If a child displays a combination of the abovementioned effects, information must be gathered to confirm prenatal alcohol exposure. If confirmed, the child must also be referred for psychological testing to assess the learning and behavioural characteristics of the child concerned (Hoyme et al, 2005:45-46).

Realizing the devastating consequences of FASD and taking into consideration that South Africa has the highest prevalence of FASD in the world, it is also necessary to look at risk factors that contribute to this sad state of affairs.

3.5 RISK FACTORS FOR FASD

The primary risk factor for FASD is drinking often and heavily during pregnancy or binge-drinking which produces high blood alcohol levels (May et al, 2008:739). It is therefore not surprising that FAS is more often found in groups in which alcohol abuse is problematic (Stewart, 2005:20). May et al (2008:739) also refer to a dose-response effect which refers to the quantity, timing and frequency of drinking and has been connected to the increased probability of microcephaly, craniofacial features, intelligence and behaviour problems in the offspring of alcohol-abusing mothers. They are, however, of the opinion that variations in levels and symptoms of damage in children emanating from mothers with different drinking patterns are not fully explained by the quantity and frequency of drinking. There must, therefore, be other risk factors that alter the effects of alcohol on the fetus.

According to Golden (1995:60) alcoholic women differ from their non-alcoholic counterparts in a myriad of ways. May et al (2007) describe women at risk for having a child with FASD as complex individuals with lifestyles and behaviours that are difficult to change. Golden (1995:60) adds to this by describing them as typically very poor, smoking heavily, eating poorly, receiving little or no prenatal care, suffering from numerous alcohol-related health problems, experiencing high levels of stress in their daily lives and, in many cases, using dangerous and often illegal drugs. All of these factors appear to influence the expression of the syndrome.

However, the most commonly recognized risk factor as yet, is binge-drinking, which produces high blood-alcohol levels. According to May et al (2007), binge-drinking is the most influential factor on child growth and especially on cognitive and behavioural

development. In a study by May et al (2008:742) in the Western Cape, women with children in the FASD spectrum consumed 73 – 100% of all the alcohol which they consumed, over weekends. In the same study, 81% of these mothers admitted to binge-drinking. Contrary to popular belief that wine is the beverage of choice in the Western Cape, beer was the favored beverage with wine being the second choice.

Of significance in this study, was the finding that alcohol abuse and FASD cluster in families. It also seemed that some families escape many symptoms of FASD despite substantial alcohol consumption. According to various writers (May et al, 2008:740), this indicates that both social and genetic factors influence susceptibility to FASD. This view is confirmed by Gomberg (cited in May et al, 2008:740), who declared that maternal risk involves the interaction of biological, historical, social and psychological influences. Urban et al (2008:877) are in agreement with this when they find that South Africa's high FAS burden is related to risky maternal alcohol consumption. Other personal, social and perhaps genetic factors in mothers also increase the risk of FAS. Questions were also raised about intergenerational prenatal alcohol exposure since some of the mothers had small head circumferences and appeared to have FASD themselves.

Various researchers agree about the fact that older mothers are at higher risk of having a child with FAS (May et al, 2008:749; Urban et al, 2008:877; May et al, 2005:1190). A study by May et al (2008:742) on maternal risk factors, found that advanced maternal age also goes hand in hand with higher gravidity (amount of pregnancies) and parity (amount of live births). In the above-mentioned study, the birth order of children with FAS was also significantly higher than that of children in the control group. This is an indication of the fact that later-borne children are more affected by prenatal drinking. Although South African mothers with children diagnosed with FAS were older than control mothers, they were still younger than their counterparts in more developed countries. This can be explained by the duration, degree and regularity of binge-drinking during pregnancy in

South African mothers, coupled with higher gravidity and parity. Another significant finding in this study was that only mothers of children with FAS had a history of stillborn children (May et al, 2008:742)

A significant fact forthcoming from the studies of May et al (2008:747; May et al, 2005:1196) was that mothers of children with FAS were significantly smaller than mothers of children in the control group as far as height, weight, head circumference and body mass index (BMI) is concerned. The lower the mother's weight, the more dysmorphic the child was. The highest correlation was found between the weight of the mother and the dysmorphology score of the child. The second highest correlation was between maternal height and dysmorphology score. The speculation about this finding is that mothers with a small body size, combined with high blood alcohol levels may be less likely to eliminate alcohol via first pass metabolism. More alcohol will therefore, be allowed to enter the placenta and, as a result, will cause more fetal damage. A lack of food in the stomach prior to drinking further increases the blood alcohol levels. Poor nutrition, lifelong and current, must also be seen as a contributing factor to FASD. This is confirmed by Urban et al (2008:877) who mention poor nutrition as one of the socio-economic factors that contributes to an increased risk of having a child with FAS.

Sampson, Streissguth, Bookstein, Little, Clarren, Dehaene, Hanson and Graham (1997:323) take the matter of socio-economic factors further by saying that the risk of FAS appears to be greater in the presence of low socio-economic status, poverty and lack of education which often accompanies alcohol abuse. According to these authors women who drink and have these characteristics appear to be at a higher risk of having a child with FAS than women with higher levels of development. May et al (2008:738) agree on this matter when they state that low socio-economic status and low education were identified in the United States as risk factors contributing to FAS. In a South African study May et al (2008:742) found a spectrum of educational attainment where mothers of

children with FAS had the lowest mean education and the mothers of children in control groups had the highest education. The weekly income of mothers with FAS children also were significantly lower than that of the control group. May et al (2008:739) also state that in South Africa, mothers of children with FAS are of an even lower socio-economical status than groups classified as low socio-economic status elsewhere.

This view is also held by Urban et al (2008:877) who are of the opinion that socio-economic status as a risk factor for FAS may be a blanket term for various poorly defined factors that include psychological depression, unplanned pregnancies and poor nutrition that provoke, or interact with, alcohol consumption, to aggravate the effects of high risk drinking patterns. According to Steward (2005:20) race, ethnicity and economic class are not distinguishing factors in having a child with FAS, but it is more prevalent in groups where alcohol abuse is a problem.

The general agreement, therefore, is that FAS is not only caused by drinking, but that the mother's living conditions contribute to the risk factors. Other contributing factors in her socio-economic environment are cohabitating with an alcoholic male partner rather than being married, sexual dysfunction, alcohol abuse in their extended families, friends who drink heavily, initiating drinking at an early age, low self-efficacy, poor life goals and few interests (May et al, 2008:749; May et al, 2005:1190). Viljoen et al (2005:598) also state that their study in a high risk community found that fathers of children with FAS drank heavily. These fathers were likely to have drinking problems and to be farm laborers. All these factors create stressful circumstances during pregnancy, which in itself is another contributing risk factor to heavy maternal drinking during pregnancy. May et al (2008:750) thus state that the most severe life circumstances produce more problem drinking and therefore also FASD.

Raising the risk to farm laborers, May et al (2005:1193) mention that in their study, mothers of children with FAS were more often employed on farms, had lower incomes, lower education levels and lower religiosity. Crowford and Viljoen (cited in May et al, 2005:1190) found that 34% of urban women and 46-51% of rural women in their study in the Western Cape admitted to drinking during pregnancy. This, however, also points to unplanned pregnancies as a risk factor. According to Urban et al (2008:882) the high rate of unplanned pregnancies and low levels of contraceptive use, especially among mothers of children with FAS, is cause for concern since a previous child with FAS is considered a strong risk factor for having another child with FAS. These authors also state that unplanned pregnancy prevents modification of drinking behaviour in early pregnancy, which is of the utmost importance since the first trimester is the period in which the embryo is highly sensitive to the toxic effects of alcohol.

A table listing the risk factors for FASD under the categories of drinking habits, social factors, physical factors and psychological factors is presented.

Table 3.4 Risk factors for FASD

<p><u>Drinking habits</u></p> <p>Drinking often and heavily during pregnancy Quantity, timing and frequency of drinking Binge-drinking Initiating drinking at an early age</p>	<p><u>Social factors</u></p> <p>Low socio-economic status Poor nutrition Lack of education Low income Unmarried mothers cohabitating with male partners Friends who drink Alcohol abuse in extended family Heavy drinking male partners Low religiosity Farm workers</p>
<p><u>Physical factors</u></p> <p>Possible genetic factors Older mothers Small, light women Amount of pregnancies Birth order of the child Unintended pregnancies</p>	<p><u>Psychological factors</u></p> <p>Depression Low self-efficacy Poor life goals</p>

The table gives an indication of the importance of social factors as contributors to the prevalence of FASD. Maternal risk factors involve an interaction of various factors such as biological, social, psychological, familial and historical factors (May et al, 2005:1190). Prevention services, therefore, have to be interdisciplinary. In understanding these factors and their influence on one another, the ecological perspective can be of great value.

3.6 CONCLUSION

Studies have proven that maternal alcohol consumption during pregnancy has adverse effects. When a pregnant mother drinks, alcohol crosses her placenta and quickly reaches the fetus. The fetus, which depends on the mother to detoxify, is caught in amniotic fluid which acts as a reservoir for alcohol, thereby prolonging fetal exposure to alcohol (Chambers, 2006).

The effect of prenatal alcohol exposure on a child's development is highly variable and ranges from brain damage to physical abnormalities and behavioural problems (Kalberg et al, 2006:2038). A complex set of factors determine the neurobehavioural effects of prenatal alcohol exposure. As studies uncover more of the adverse effects of maternal drinking during pregnancy, the existence of a continuum of effect is becoming clearer (Kalberg & Buckley, 2007:279).

There is no doubt that FAS places a heavy burden on the individual, his/her family and society in general. The needs of a person with FASD requires support from a variety of resources such as education systems, health care and social services. The high prevalence of FAS in South Africa and the influence of FAS on behaviour therefore raises serious questions of the influence of this behaviour on South African society, where unemployment, violence and crime ravages communities. Looking at FASD and its consequences from an ecological perspective, creates the opportunity to give recognition to the fact that the individual with FASD has special needs that must be met, not only at a

microlevel, but also by actions on the mesolevel and macrolevel. All these levels mentioned above are affected by FASD. Due to the vital role social circumstances play in having a child with FASD, the next chapter will examine the everyday realities of women living on farms and how these circumstances contribute to the risk of having a child with FASD.

CHAPTER 4

THE SOCIO-ECONOMIC CIRCUMSTANCES OF WOMEN ON FARMS

4.1 INTRODUCTION

Rural residence during pregnancy is a significant risk factor among the mothers of children with FAS (May, 2008:742). Various studies have indicated that the occurrence of FAS is even higher among the children of women living on farms than in rural towns (May, 2008; May et al, 2007; Viljoen et al, 2001). This risk applies not only to women living on wine producing farms, but to all farms (Rendall-Mkosi, London, Adnams, Morojele, McLoughlin & Goldstone, 2008:2). Statistics show that almost 50% of all pregnant mothers in the Western Cape Province use alcohol. It is also known that children with FAS often come from families in which generations have abused alcohol (McKinstry, 2004: 1098).

To fully understand why the FAS rates of the Western Cape are the highest in the world, it is crucial to examine the social conditions in which the women of the province live (McKinstry, 2004: 1098). It has been well documented that, in general, many women use alcohol as a coping mechanism for stress. Many women also struggle with feelings of depression, low self-esteem and feelings of powerlessness (Mc Kinstry, 2004: 1098; Viljoen et al, 2001: 7). Waldman (1994:5) states that people living on farms are still seen as a part of a community which is distinct from the rest of the world. According to Du Toit (2004) farm workers have been alienated physically, politically and socially, resulting in closed, marginalized, enmeshed and dysfunctional communities fraught with social problems, substance abuse and poverty. One of the objectives of this study is to explore and describe the needs and realities of women in the rural parts of the Western Cape and how it contributes to the high prevalence of FAS.

Although the circumstances of farm workers is a highly politicized topic, which is investigated and exploited by many individuals and organizations, it is not the purpose of

this chapter to politicize the conditions and circumstances of farm workers. This chapter will look at the importance of agriculture in South Africa and how the current social structures on farms developed. It will also explore the vulnerability of women on farms, and their realities concerning conditions of employment, wages, poverty, housing, schooling, domestic violence and access to services. The problem of alcohol abuse is examined in order to get a clearer understanding of the need for prevention projects for FAS and how this should be shaped to have maximum impact on those with the highest risk for having a child with FAS. By using the ecological perspective, it is possible to come to an understanding of the influence of the individual and the different systems in the wider community, or the mesosystem, on each other.

4.2 FARM WORK IN SOUTH AFRICA

Traditionally, families of farm labourers have worked for the same farmer family for many generations. As farms were inherited by sons from their fathers, farm worker families stayed on the farms. The farmer fulfilled the role of patriarch, providing for and deciding on many aspects of the farm workers' lives with no laws governing their relationship before 1994 (Shabodien, 2006:4). A host of laws in the post apartheid era, has however changed the relationship between farmer and workers. Unfortunately these changes did not always benefit the workers (Shabodien, 2006:3).

4.2.1 The importance of agriculture in South Africa

Agriculture plays a key role in South African society. It contributes $\pm 5\%$ of the Gross Domestic Product and $\pm 10\%$ of the total export earnings. Nationally, it is one of the largest sources of employment and is viewed as a key area earmarked for the generation of export earnings, higher growth rates and job creation (London, 2003:59). It is estimated that the work on farms provides as much as 50% of employment in the Breede Valley and

Overberg areas (Sunde & Kleinbooi, 1999:10). According to London (2003:59) \pm 30% of workers in commercial agriculture are women.

Farm work in South Africa has a long and colourful history which can be traced back to the early settlers. To understand modern day circumstances on farms, it is necessary to look at the history behind these circumstances.

4.2.2 The history of farm labour in South Africa

Du Toit (2004:10) states that the story of the first farm labourers in the Western Cape is the story of slavery. The early periods of slavery and paternalism are seen to have had a profound effect on the human potential, rationality and freedom of the labourer (Falletisch, 2008:21).

The Dutch East India Company, also known as the VOC, introduced slavery to South Africa under the leadership of Jan van Riebeeck in 1652. Slaves were imported as a labour force to establish an agricultural settlement which would supply provisions to the passing fleets sailing the African coastline. Although slaves were socially isolated, slavery influenced the social and economic life of the Cape colony considerably (Falletisch, 2008:22). Slaves, being at the bottom of the social ladder, were disempowered and vulnerable. Owning slaves however, gave social status to their masters and offered them a chance to prosper (Falletisch, 2008:29).

When a slave owner took possession of a slave, he also took possession of the slave's life. A paternalistic relationship existed between the slave and his master. In this relationship the master would provide food, shelter and clothing in exchange for servitude (Falletisch, 2008:23-24).

Although slavery was abolished in 1834, its legacy remains in a society where dependency and the powerlessness of people is still clearly visible (Falletisch, 2008:34).

Since large numbers of slaves were employed on wine farms, it is no surprise that the legacy of slavery lingered so long in the agricultural sector (Falletisch, 2008:22).

4.2.3 The current social structure on farms

Falletisch (2008:38) describes the relationship between the farmer and labourer as a paternalistic relationship in which the labourer exchanges control over his life for employment and housing. It is also seen as an authoritarian relationship in which the farmer has power over the labourer. This confirms the views of Kritzinger (2005:107) who states that within this paternalistic relationship, workers have often been treated as minors who need protection and looking after by the farmer.

It is also important for farm workers to have personal access to the farmer and an accessible farmer is commonly seen as a “good farmer”, meaning that the farmer has good relationships with his workers (Kritzinger & Rossouw, 2002:4). This relationship simultaneously creates security for the worker and dependency on the farmer. The result of dependency is, however, powerlessness, insecurity and uncertainty (Falletisch, 2008:45).

Kritzinger (2005:107) is of the opinion that, since the beginning of the 1980's, traditional paternalism on most fruit farms have been increasingly 'modernized', bringing a reduction in the unilateral power and authority of the farmer. Greater emphasis has also been placed on human resource management and the social development of workers through programmes and projects. This change from paternalism to a more formal relationship where contracts, administrative systems and records are used is, however, perceived by many farm workers as abandonment and change. Due to their functional illiteracy, many farm workers struggle to understand contracts and records which, in farm management, is binding and used to make judgment (Falletisch, 2008:45).

Falletisch (2008:47) further argues that by simply removing the farmer as the figure of authority is no guarantee for quick changes in the lives of the farm workers. She continues by saying that in many instances it is the workers who hold on onto the traditional role of the farmer as the ultimate authority and judge. A change in social relationships alone is therefore not enough to change the lives of workers. Meaningful change in economic status, new employment strategies and distribution of power are needed to facilitate change and empower people to cope with change (Falletisch, 2008:47).

This confirms the view of London (2003:60) who states that the change in legislation to cover rights to collective bargaining, basic conditions of employment and workplace health and safety, has not resulted in practical changes in the lives of farm workers. Falletisch (2008:51-52) also expresses the opinion that farm workers have remained poor, disempowered and dependent despite legislation that protects and promotes their rights and conditions. She continues by saying that dependency and powerlessness have become institutionalized and describes the lives of labourers on wine farms as burdened with a daily struggle, jealousy, habitual drinking and interpersonal violence.

Du Toit (cited in Falletisch, 2008:41) confirms this view saying that the real picture of farm workers is not that of a harmonious community maintained by mutual loyalty, but one of aversion to change and outside influences as well as blindness to the social ills and jealousies within the community of workers. Falletisch (2008:41) agrees with this statement when she says that workers still express antagonism against any newcomer or intruder, be they organizations or individuals working for change. They are, according to Falletisch, seen in the same light as a thief or urban gang.

Although workers living on farms create the impression of a sense of cohesiveness and family, the opposite is believed to be true. Falletisch (2008:40) found that cohesiveness

was only relevant when the workers wanted to keep outsiders out and to a certain extent when they discussed landowner/labourer relations. This also caused problems when projects calling for cohesiveness were introduced, since such projects had to struggle against interpersonal rivalry and jealousy between workers. Falletisch (2008:41) concludes by saying that the community on a farm exists co-dependently, but separate from the rest of the world.

London (2003:65) also refers to what he calls the “closed nature” of farm work. Although workers tend to move from farm to farm, they stay within the same social stratum. Few farm workers’ children manage to leave the sector. This can be attributed to the chronic undernutrition of children, possibly coupled with intrauterine exposure to alcohol and tobacco products which affect the lifetime potential of young people on farms. As a result, breaking the cycle and leaving the farm is extremely difficult (London, 2003:65).

This is even truer for women who are already in a powerless position where their realities are determined by gender-based access to resources and opportunities. According to Kehler (2001) gender defines social, economic and political roles and functions in society. The following section will describe the various realities to which women on farms are exposed.

4.3 THE REALITIES OF WOMEN ON FARMS

Kehler (2001) states that women are the most vulnerable group in the workforce. Women on farms face various obstacles. They battle to earn a living wage as well as to earn the status and rights to which they are entitled. This section will explore the mesolevel of women on farms and its’ influence on their daily lives by using the ecological perspective.

4.3.1 Farm women as a vulnerable group

Women on farms can be identified as the most vulnerable group of South African society (Falletisch, 2008:85). According to Waldman (1994:10) women are oppressed by both male labourers and farmers. Falletish (2008:87) states that the oppression of women is so entrenched that few women are able to break free. She further argues that girls are raised with the perception that they are worth less than men. This view is supported by Kehler (2001) who contends that, according to prevailing cultural and social norms, women are seen as less 'valuable' members of society. Not only do they experience these attitudes and behaviours on a daily basis, but they also experience it within policy-making and legislative structures. According to Kehler (2001) society and culture still define a women's primary social role as that of a caregiver, caretaker and in relation their 'reproductive' function. In contrast to that, the author describes men as being respected as breadwinners and defined by their productive role. Falletish confirms this view, saying that girls are often not expected to complete their schooling but rather encouraged to leave school and manage the household (2008:87).

Furthermore, women on farms also do not support each other. They expect from each other to endure discriminatory and oppressive treatment by the men in their lives (Falletisch, 2008:87). This behaviour is also mentioned by Sunde and Kleinbooi (1999:58) who refer to the jealousy between women and the tendency to gossip about each other as a common social problem. According to Sunde and Kleinbooi (1999:58) this results in women being reluctant to accept promotions since they may be labeled as thinking that they are better than others. This attitude and behaviour only adds to Kehler's (2001) concern that women's realities in South Africa are still determined by race, class and gender-based access to resources and opportunities. Along with their lack of self-esteem and cohesiveness, women unfortunately also have a lack of knowledge of laws which protect them in their working environment.

4.3.2 Conditions of employment

The 1994 elections raised the hope that the position of women, including women on farms, would improve. The term “substantive equality” implies that everyone should have the same opportunities and rights, taking into account that, in some cases, people are unable to access those rights and opportunities. It therefore also suggests that it should be easier for people who were previously disadvantaged to access those rights (Hill-Lanz & Mitchell, 1997:7). According to Kehler (2001) women on farms have difficulty enforcing their rights since they are dependent on the farmer and life on the farm. Kehler further states that the survival of many women depends on their being allowed to remain and work on the farm. For that reason, they will often endure discriminatory conditions. Along with women’s lack of self-esteem and cohesiveness, they also have a lack of knowledge about protective laws. Sunde and Kleinbooi (1999:30) found that a large percentage of women did not have contracts or were ignorant as to the terms of their contracts. This implies that a large number of female farm workers do not know what their conditions of employment are.

Historically, the employment of women on farms was linked to their male partners’ contracts. Sunde and Kleinbooi (1999:28) found that 51% of farmers stated that when they employ a male worker, they ensure that his wife is also available to work on the farm. This creates the impression of tied contracts. Shabodien (2006:1) agrees and argues that a woman’s position on a farm is usually determined by her relationship to a male worker and that women are normally engaged in farm work as the wife or girlfriend of a male worker. According to Shabodien (2006:1) women are seen, and often treated, as an extension of the male labourer. This view is also held by Kehler (2001) who reasons that women on farms are often regarded as an extension of their male counterparts and not recognized as a valuable category of workers themselves.

However, global integration is leading to changing patterns of employment. This causes a decline in secure, permanent work and an increase in informal work with little job security, as linked to the global economy. This trend has affected the South African deciduous fruit sector regarding the export market. Modernization and transformation of employment due to the expansion of fruit exports, has involved a shift away from permanent employment and on-farm labour to temporary, flexible, off-farm labour, particularly contract labour (Kritzinger, 2005:100). This author contends that an important factor in the abovementioned trade liberalization is the gender dimension of informalization of employment. Although it affects all farm workers, it has particularly significant implications for women in terms of the way in which it affects their livelihood and access to social protection.

According to Kritzinger (2005:102) there has been a tendency to employ women as informal, flexible workers as part of a “reserve army of labour” which can be resorted to at the height of the season. This concentration of women in flexible employment raises a number of issues:

- The insecure nature of this employment;
- The fact that there are no regular wages, benefits or job protection;
- Women are faced with insecure, unprotected labour or no employment at all (Kritzinger, 2005:102).

Sunde and Kleinbooi (1999:11) state that women often stay in their jobs because work is scarce. Furthermore, women do not know how to access information in the job market, are unskilled or the farmers do not allow them to work elsewhere. The Department of Social Services and Poverty Alleviation (2004:4) confirms that women on farms are seldom skilled enough to do any other work and even if they were, there are rarely opportunities for better jobs. They are also fearful to risk leaving the farm as it may affect

the security of their families since most of them have no alternative to life on the farm. Another important factor is the increasing trend towards the casualization of labour. This has critical implications for women farm workers and their access to sustainable livelihoods (Sunde & Kleinbooi, 1999:17). This restructuring of employment causes women to make trade-offs in particular aspects of their lives (Kritzinger, 2005:122).

Employers also differentiate between permanent, seasonal and temporary workers. The study of Sunde and Kleinbooi (1999:11) showed a decline in the number of permanent workers on deciduous fruit farms and an increase in the number of seasonal and casual workers. When women are permanently employed, their contracts sometimes stipulate that they will not work for a full week or they will receive no pay if it rains (Sunde & Kleinbooi, 1999:17). Kehler (2000) agrees that women are mostly employed as casual or temporary labourers during harvest or other times of labour intensive work. She states that in some cases women are employed as seasonal workers for the entire year, but not granted the rights of permanent workers. Even though many women work throughout the year, they perceive themselves as seasonal or casual workers simply because they are regarded thus by their employers (Sunde & Kleinbooi, 1999:10).

According to London (2003:59) the rapid decline in casual labour compared to permanent labour, has resulted in a decline in the percentage of women in the commercial farm labour force. Kritzinger (2005:111) however disagrees with this view. Her findings show that fruit producers began to appoint women as permanent workers and used them in traditional male tasks such as pruning, driving and general orchard work, since the early 1990's. This led to gains in formal employment rights for women such as benefits stipulated by employment legislation and day care for their children. However, in many instances, the worker family remained the unit of employment, suggesting that most producers still perceive women as associated with a male worker.

In order to evade labour legislation, many farmers resort to the use of contractors or labour brokers, who temporarily place workers with a farmer for a specific period of time and a particular task, for example harvesting. The farmer then has a contract with the contractor or labour broker and not with the worker (Falletisch, 2008:59). Labourers remain vulnerable, marginalized and powerless in these circumstances. This, in turn, leads to ongoing oppression and discrimination despite attempts by NGO's, lobbyists and laws to reverse their circumstances. Falletisch (2008:59) describes the relationship between the contractor and the labourers as paternalistic and therefore rendering the worker dependent and powerless in many instances. According to Kritzing (2005:112) the use of contractors result in the limiting of social benefits and facilities for women which farmers provided in the past. This includes transport to doctors and shops, provision for literacy classes, subsidized medical expenses and women's clubs.

Sunde and Kleinbooi (1999:22) also refer to the fact that there is still a clear sexual division of labour on farms which impacts on wage parity. Women do not get equal pay for work of equal value even though their work on the farm is equally important. The Department of Social Services and Poverty Alleviation (2004:4) points out that job security and the quality of life for women on farms are still affected by gender imbalances. They receive lower wages than men, married women do not have independent employment contracts, they are dependent on their husbands for housing and security of employment and receive no paid maternity leave. This confirms the earlier statement by Waldman (1994:26) that work that was previously done by men is now perceived as 'women's work'. Sunde and Kleinbooi (1999:25) summarize the situation on farms by saying that the working environment on farms is still very much 'a man's world'. This has serious implications for the sustained livelihood of women on farms.

4.3.3 Waged poverty

According to a household survey by the Community Agency for Social Enquiry in 1995, more than two thirds of farm worker families in the Western Cape Province live in waged poverty (London, 2003:60). The Department of Social Services and Poverty Alleviation (2004:3) states that the economic situation of farm workers is worse than in any other sector of the economy. This refers not only to low wages, but also to poor housing facilities, lack of access to education and substandard health services. The Department of Social Services and Poverty Alleviation (2004:3) also mentions the vast differences between the wages of male and female employees, as well as the lack of job security for women employed on a contractual or seasonal basis. Kehler (2001) states that women farm workers are paid less than their male counterparts, even when they perform the same tasks. Shabodien (2006:2) reasons that this happens because women's work is seen as low status, unskilled labour and is therefore valued in monetary terms as well below the work of men.

Women's wages and working conditions are, however, critical to the upholding of the standard of living of millions of households in South Africa (Sender & Johnston, 1995:14). Low wages contribute to a low quality of life which consists of aspects such as:

- Few life changes in order to find better circumstances for themselves and their children;
- Relatively poor living conditions and a lack of good recreational alternatives;
- A feeling of political, social and educational disempowerment (Department of Social Services and Poverty Alleviation, 2004:3).

The Department of Social Services and Poverty Alleviation (2004:5) believes that these high levels of poverty impact on the ability to feed their families. Children are therefore often undernourished or malnourished. Farm shops, however well intended, can contribute to further poverty when/if their prices are inflated. It can also contribute to a

“cycle of poverty” for both adults and children and lead to “food insecurity” for both adults and children (Department of Social Services and Poverty Alleviation, 2004:5).

According to Kehler (2001) poverty needs to be addressed in a more comprehensive way by creating opportunities for all people to share in the country’s wealth, growth and prosperity. She emphasizes that education, skills training and job creation needs to be provided to the poor as tools to uplift themselves from poverty.

Women have, however, invented their own way to control the household’s monetary affairs although the men earn more than they do. According to custom, men give their pay packets to women and then receive pocket money, while the women keep the rest for domestic purposes. This control can, however, be limited if a man falls ill, loses his job or spends this money on alcohol, drugs or other girlfriends (Waldman, 1994:14). Despite the fact that women on farms have invented many ways to overcome and even challenge some factors that threaten their daily lives, other persisting realities and customs still contribute to their powerless situation.

4.3.4 Housing

The Department of Social Services and Poverty Alleviation (2004:4) states that housing security is a vital issue for farm workers, especially women. Many working contracts are bound to housing and stipulate that when labour is terminated, so is the right to housing. This view is upheld by Falletisch (2008:39) who states that housing is an important factor in the agreement between farmer and worker. The term ‘tied housing’ is used to refer to contracts in which housing on the farm is tied to working on the farm. According to Falletisch (2008:39) this has always been a key aspect of farm life and the relationship between landowner and worker.

Housing conditions vary widely but is poorest on the smaller commercial farms (London, 2003:60). This author (2003:64) argues that the workers’ dependence on the employer for

housing is a crucial factor which limits their ability to take independent action. This is confirmed by Falletisch (2008:39) who reasons that losing a house is a constant threat to many farm workers since losing their job also means losing their house. Because the house is often tied to the man's job, women are even more vulnerable and dependent. Although housing usually forms part of a man's employment contract, it is expected from the women to be available for temporary labour during the peak season. The expectation is that the work on the farm will take precedence over other jobs they might have secured during the off-season (London, 2003:64). Even children are often compelled to work on the farm after they turn eighteen or forfeit the right to live on the farm (Department of Social Services and Poverty Alleviation, 2004:4).

London (2003:64) describes the issue of access to housing as gender-specific and states that male workers enjoy preferential treatment whilst women labourers have no security of housing outside the employment status of their male spouses or other family members. In some cases where women also hold permanent employment contracts, the housing contracts are still held by their male partners (Shabodien, 2006:2). He reasons that this results in women securing access to housing through a relationship with a male worker.

Waldman (1994:13) however challenges this view that women only remain on farms because of their attachment to male workers. She states that on a specific farm, 30% of all households were female-headed. According to her this suggests that women are not only allowed on farms without male partners, but that they can also be economically independent of men.

4.3.5 Schooling

Women farm workers are confined to the farms by their lack of education and skills (Waldman, 1994:18). She contends that these women are dependent on the safety net of kin and the farmer's paternalism. London et al (cited in London, 2003:6) confirm this view

when they state that \pm 20% of adult farm workers in the Western Cape are illiterate. London (2003:6) refers to studies that suggest that the median level of schooling on farms in the Western Cape is less than 6 years.

This lack of schooling is caused by several factors such as the long distances some children have to walk to school, a lack of access to Early Childhood Development facilities, financial realities of parents who can't afford uniforms or stationary, the need to help support their families or teenage pregnancy. Even though farm schools in the Western Cape are better funded than farm schools in other parts of the county, they are still challenged by multi-grade classes, children with learning problems and in many instances, a general lack of resources. These factors impact on the quality of education which the children receive and their exposure to alternate occupational and economic opportunities (Falletisch, 2008:98-99; Department of Social Services and Poverty Alleviation, 2004:11).

Sunde and Kleinbooi (1999:23) refer to the fact that there are limited training opportunities for women on farms. Hill-Lanz and Morgan (1997:48) also point out the obstacles women face to further their education by attending night school or ABET (Adult Basic Education and Training) education due to their household duties and the inaccessibility of these educational opportunities.

The role of education in alcohol abuse is highlighted by Parry, Pluddeman, Steyn, Bradshaw, Norman and Laubsher (2005:93) who found that men and women with either low or high levels of education are more likely to drink than those with moderate education. According to these authors, alcohol problems in women are strongly associated with a lack of school education. A lack of education is generally linked to a multitude of social problems and a general lack of knowledge about services and how to use these services.

4.3.6 Health

According to London (2003:65) the general health of farm workers is extremely poor, even when compared with the national average, which is already compromised. London (2003:65) further states that farm workers are faced with "...seemingly insurmountable structural obstacles to securing health", and has little notion of their human potential.

The majority of farms in the Western Cape are serviced by well-established mobile clinics which forms part of a network of primary health care. Access to more comprehensive health care is, however, difficult and women are dependent on transport to the doctor. A study by Sunde and Kleinbooi (1999:52) showed that 71.5% of farmers provide transport in case of emergencies. Some farmers also pay doctor's fees although 57% of women in their study reported that they had to cover their own expenses (Sunde & Kleinbooi, 1999:53).

The health of farm workers is seriously threatened by high rates of alcohol consumption (London, 1999:1410). According to Parry (2000:218) regular heavy drinking in developing countries is likely to include health problems such as liver cirrhosis, heart disease and malignancy to their health profile in future. At present it creates health risks which result in trauma, violence, organ damage, unsafe sexual practices, general poor nutrition and damage to the brain of the developing fetus. London (2006:65) adds that chronically undernourished farm children become chronically undernourished adult farm workers.

4.3.7 Family violence

Artz (1998:30) describes a cycle of violence in the rural community that is hard to understand and very difficult to break. Women in patriarchal communities like these in rural communities are - according to this author - more vulnerable and at a greater risk of being victims of domestic violence. Artz (1998:30) states that women are often seen as possessions and males are encouraged to dominate. By keeping women economically

dependent and predominately isolated, violence against women is implicitly and explicitly condoned and the seriousness of violence can be dismissed (Artz, 1998:30). She concludes that dependency and isolation go hand in hand and makes it almost impossible for women to break free (Artz, 1998:30).

Sunde and Kleinbooi (1999:51) confirm the high incidence of domestic violence and sexual harassment on farms. They found that 67% of employers in their study confirmed that domestic violence occurs among the workers on their farms, while 25% reported sexual harassment of women on their farms. The employers linked this violence to the abuse of alcohol. Parry and Bennets (1998:58) claim that women face a substantial burden of direct and indirect harm associated with the misuse of alcohol. A study by Strydom in the rural magisterial districts of the Western Cape, found that more than three quarters of home violence trauma was considered to be alcohol-related (cited in Parry & Bennets, 1998:62)

According to Waldman (1994:18) the relationships between men and women on farms are affected by poverty, alcohol abuse, farmer paternalism and religion. She also describes farm workers' relationships of care and emotional commitment as an "...intertwining of dependence and violence". Waldman (1994:13) further states that this causes extremely complicated gender and power relations. Falletisch (2008:80) links these power relations to the workplace. She states that farm workers have, until recently, been marginalized and are locked into cycles of poverty. Men are powerless in the workplace and the only place they have power, is in the home. Sadly they express that power through aggression and violence to maintain order in the home and to save face in the community.

A very upsetting factor in the occurrence of violence is the fact that the women on farms do not support each other. Women who apply for, and use, interdicts are criticized by other women. They are blamed for their own injuries and encouraged to hit back, but not

to use the law or make moves to move away from their violators (Falletisch, 2008:76). Artz (1998:5, 20) confirms that a non-violent option such as obtaining an interdict and counseling is often seen as soft and a sign of weakness. Even if a woman decides to report abuse, she faces overwhelming odds against her. According to Artz (1998:5, 20) a lack of access to telecommunication, legal services, transport, police, alternative housing as well as the high rates of unemployment and fear of community gossip are all factors that make the decision to seek help overwhelming and extremely difficult.

There are, however, women who do not accept the men's control and dominance. According to Waldman (1994:13) female-headed households do not suffer physical abuse by men. She states that this appears to be the reason why some women prefer not to marry and to accept financial responsibility for their children.

Falletisch (2008:77) sums the perspectives of violence on farms up as a weapon of the weak, a sign of strength by men, the 'nature' of man, the 'lot' of women, a tool of the oppressed, a legacy of poverty and marginalization and a symbol of belonging and being loved.

4.3.8 Problematic social conditions

The social and living conditions of women on farms are described by Sunde and Kleinbooi (1999:58) as extremely harsh. Abuse and sexual harassment are common experiences. Single parenting is also common and few women receive maintenance from the fathers of their children. Working hours, especially during the season, are long and can exceed 11 hours per day, including meal breaks (Sunde & Kleinbooi, 1999:33). Women also encounter difficulty keeping their dignity when there are no ablution facilities available during long days in the vineyards or orchards (Sunde & Kleinbooi, 1999:25).

Sunde and Kleinbooi (1999:57) state that women carry a heavy burden working all day on farms and then caring for their households. Kritzinger (2005:122) confirms that women

farm workers still have the primary responsibility for childcare and domestic duties. According to Sunde and Kleinbooi (1999:57), these women experience frustration about the fact that their partners very often take no responsibility for household tasks and even leave chopping firewood to them.

Another big problem farm workers face is access to services such as health services, social services, the justice system and general information concerning issues that form part of their lives (Sunde & Kleinbooi, 1999:58). Women farm workers have also expressed other key problems such as:

- The effect of working in all weather conditions on their health;
- Criticism on their work by male farm workers;
- Jealousy, backbiting and tension among workers;
- Not being able to handle their work and all the household tasks on their own and
- Low wages (Sunde & Kleinbooi, 1999:58).

Farm women often do not perceive leisure as legitimate. Alcohol-consumption is therefore a much-needed outlet and also a form of relaxation. This however, contributes to the myriad of social problems on farms (Sunde & Kleinbooi, 1999:58).

4.3.9 Alcohol abuse

4.3.9.1 The role of alcohol in the lives of farmworkers

Alcohol was originally used by the Dutch settlers to induce indigenous people to work on their farms. It gradually developed as a powerful form of labour control known as the DOP system. Over generations, farm workers became enmeshed in a cycle of poverty in which alcohol dependence, inter-related violence and poor self-esteem are inter-related (London, 2003:61). Given the Western Cape's history with the DOP system, it is, according to London (1999:1409) not surprising that alcohol consumption amongst farm workers is

extremely high. In an earlier study, London found that the level of alcoholism amongst farm workers was in excess of 60%. London (1999:1409) also states that, according to reports from rural hospitals, almost half the traumatic injuries treated are alcohol-related. The Department of Social Services and Poverty Alleviation (2004:6) confirms that alcohol abuse accounts for up to 60% of trauma due to violence on farms.

Parry (2000:216-217) states that about a third of the adult population in South Africa who drink alcohol, do so at risky levels. This is particularly true over weekends. According to Parry it also seems that drinking to intoxication level is the norm for many drinkers. This is confirmed by statistics from a recent community survey undertaken in the Bonnievale, Robertson, Ashton and Montagu-area which indicated that the mean number of drinks men in the sample consumed in the week prior to the survey was 13.1 drinks. Among the drinkers in the survey, men admitted to 1.9 binges in the week prior to the survey and women to 1.3 binges (Parry, 2011). This confirms a statement by Falletisch (2008:62) that many farm workers drink to intoxication levels over weekends. Falletisch further states that they all believe they are in control of their drinking and do not need any help to cut down or overcome their drinking problems. This author believes that drinkers commonly underestimate the amount of alcohol which they consume (Falletisch, 2008:62).

In South Africa, a particularly high burden of harm is associated with alcohol misuse (Parry et al, 2005:93). Parry's study found that risky drinking was highest among Coloured people and Africans with low levels of education who live in non-urban areas. A significant finding in this study is that both men and women are likely to engage in risky drinking over weekends. According to Parry this is something that is not the case in other developing countries.

Parry et al (2005:91) state that alcohol consumption has increased in many developing countries. The reason for this increase may in part be due to changes in drinking patterns

from use of low alcohol content homebrewed drinks to the more frequent, recreational use of commercial alcoholic beverages. Parry et al (2005:91) also argue that the increased availability and accessibility of commercial alcoholic drinks and the introduction of high alcohol content industrial brews have led to sustainable heavy drinking patterns. In an earlier study, Parry (2000:217) states that drinking patterns in South Africa were also influenced by urbanization and changes in gender and age roles. He refers to the role which high intensity mass marketing plays in society as well as to the influence of the promotion of alcoholic beverages by multi-national corporations on drinking patterns in South Africa.

These findings are in agreement with Falletisch (2008:63) who states that farm workers, having easy access to alcohol, have a higher incidence of habitual drinking. According to Falletisch, farm workers predominantly consume bulk wine. This cheap bulk wine contributes to the problem due to its affordability. Although “papsakke” were banned by legislation, bulk wine is still sold in cheap plastic containers. Since many farm workers drink to get drunk, bulk wine provides a cheap and quick route to achieve this goal (Falletisch, 2008:66).

4.3.9.2 The effects of alcohol abuse

Habitual drinking impacts, according to Falletisch (2008:68), on every aspect of the individual and the farm community’s life, work, health, safety and family life. This impact includes:

- A high incidence of absenteeism from work;
- A high incidence of job turnover;
- A high incidence of work related injuries
- A high incidence of alcohol related trauma
- Increased use of medical aid, sick leave and workmen’s compensation benefits;

- The high incidence of FAS (Falletisch, 2008:68)

Brady and Rendall-Mkosi (2005:42) describe alcohol as a drug that changes the way in which the body functions. According to these authors, alcohol changes the way one thinks, acts and feels. London (1999:1410) states that the regular misuse of alcohol increases the risk of homicidal or accidental injury on a large scale. Unfortunately, the effects of alcohol go beyond the medical consequences. It also has a negative impact on the family, the criminal justice system, the employment sector, as well as the economic and social development of developing countries (Jernigan et al cited in Parry, 2000:218). Jernigan continues by saying that as economic development increases buying power, levels of alcohol use and related harm increases.

Parry and Bennetts (1998:7) describe the relationship between alcohol, public health and social development as harmful. They further state that one of the effects of alcohol misuse is the "...continuing erosion of family and community life among poorer South Africans". These authors also state that the continuing misuse of alcohol by disadvantaged sectors protracts under-development in these sectors and prevents access to the social and economic opportunities available to South Africans of all racial groups (1998:17).

Falletisch (2008:74) notes that people are so focused on their drinking that even when there are opportunities to take part in activities that could change their lives, they are disempowered. According to her (2008:74) farm workers drink to escape daily life and for them, daily life would change if they stopped drinking. Falletisch continues by saying that, for farm workers to stop drinking in order to create change, means giving up immediate gratification for a vision of a new life and that vision is somehow not strong enough.

According to Falletisch (2008:73) "...drinking becomes a legitimate way of life that finds its roots in the fact that it numbs the suffering and struggle of the daily life experience." To add to this struggle, workers see themselves as trapped in an environment which they find

hard to escape and then use habitual drinking as a means of escaping the meaninglessness of their lives (Schutte, cited in Falletisch, 2008:73). Falletisch (2008:73) therefore argues that habitual drinking can also be seen as a way of surrendering responsibility.

Brady and Rendall-Mkosi (2005:115) however state that there are many positive developments taking place in farming regions. Many farmers are making a real effort to improve life for their workers, and help them to avoid risky drinking.

4.3.9.3 The informal trade in alcohol

According to Parry and Bennetts (1998:9) the formal liquor industry was dominated by white-owned corporations until recently. The informal sector however, is unregulated and operates outside the law. These authors (1998:55) describe the resale of alcohol in poorer, less developed communities as a means of income to the seller which may grow even further and thereby sustain the high levels of consumption due to the accessibility of alcohol products. Brady and Rendall-Mkosi (2005:44) confirm that the availability of alcohol affects the amount of alcohol which is consumed. Parry and Bennetts (1998:122) also suggest that alcohol is most accessible in lower socio-economic status communities. Access to alcohol has increased even further due to the informal liquor trade (Parry & Bennetts, 1998:85).

Farm workers, due to their long working hours and a lack of access to transport, predominantly purchase their alcohol from the informal sector (Falletisch, 2008:64). A growing problem in the selling of liquor is sales from vehicles which drive from farm to farm to sell wine to the workers. Although it is illegal, Brady and Rendall-Mkosi (2005:120) state that this is difficult to police.

In the farming communities, shebeens are a fact of life (Falletisch, 2008:64). Brady and Rendall-Mkosi (2005:13) describe shebeens as "...simultaneously a point of sale, a viable

business, a gathering place, a recreational facility, and sometimes a place of criminal activity.” According to Falletisch (2008:64) the shebeen owners and farm workers know each other well and drinking on credit is common practice.

4.3.9.4 Teenage drinking

Teenage drinking, as well as drinking by young children, is a common phenomenon on farms. Children are often unsupervised once their parents have passed out and have access to unfinished bottles of alcohol. Farm children also know how to make their own wine in what is called “mossakke”. Very young children are sometimes pacified by their mothers with wine in their bottles (Falletisch, 2008:66)

According to the findings of researchers (Grant, 1997; Robis & Przybeck, 1985 cited in Knight, Sherritt, Harris, Gates & Chang, 2003:67) individuals who start drinking before the age of 15 are four times more likely to become alcohol dependent compared to their peers who postpone drinking until the age of 21. The drinking behaviour of young children and teenagers on farms therefore put them at risk for the development of alcohol dependency.

However, according to Falletisch (2008:67-68) adolescents on farms “...drink to get drunk with little or no cognizance of the potential harm. Teenage binge drinkers tend to be more inclined towards short term gratification and the pattern is embedded in a peer group culture. Teenagers have limited motivation to comply with parental wishes and few obstacles to obtaining alcohol.” Within the community teenage drinking is sadly accepted as normal and even facilitated by adults.

The aggregate level of alcohol intake in any community often correlates with the degree to which drinking, particularly drunkenness, is approved of (Parry & Bennetts, 1998:81). Our social, cultural and physical environments may be the most important influences on consumption patterns (Brady & Rendall-Mkosi, 2005:42). Brady and Rendall-Mkosi also state that the social environment not only influences the way people drink, but also how

much, with whom, their behaviour, how other people react to them – everything about drinking itself. The sad conclusion drawn by Parry and Bennetts (1998:81) is that in South Africa there seems to be a high level of approval of heavy drinking and very little disapproval thereof.

4.4 CONCLUSION

Women on farms are an extremely vulnerable group whose daily life circumstances hold every single risk factor for having a child with FASD. Low wages, the insecurity of their jobs, seasonal work and the fact that they cannot always rely on the fathers of their children for maintenance, contributes to their struggle for survival which often includes food insecurity. This, in turn, leads to under nutrition. Partner violence, dependency on their male partners for housing and their limited choices due to a lack of education are all factors that create stressful living circumstances leading to depression, poor life goals and low self-efficacy. These concepts used in the ecological perspective, all link to the abuse of alcohol. According to Parry and Bennetts (1998:80) many people in South Africa drink to escape from reality or to deal with problems associated with poverty. This seems to be particularly true of women on farms who are also exposed to alcohol abuse over generations, weekend binge drinking, the initiation of drinking at an early age and drinking male partners.

Despite the dedication of various NGO's, health workers, changes in legislation and the honest attempts by many farmers to better the lives and circumstances of farm workers, the legacy of powerlessness and the influence of generations of alcohol abuse remains and continues to create the breeding ground for FASD and ruining the lives of future generations.

CHAPTER 5

A SITUATION ANALYSIS OF THE PREVENTION OF FASD

5.1 INTRODUCTION

At a prevalence rate of up to 89.2 per 1000, the Western Cape has one of the highest recorded rates of fetal alcohol syndrome in the world (May et al, 2006:260; Viljoen et al, 2005:600). Fetal alcohol syndrome is the severe end of a spectrum of effects caused by alcohol intake during pregnancy (Urban et al, 2008:877; Hoyme et al, 2005:39). Drinking during pregnancy has physical, behavioural and mental consequences for the developing fetus. These effects last throughout the lifespan of the individual with FASD.

Since the primary risk factor for FASD is drinking often and heavily during pregnancy or binge-drinking, which produces high blood alcohol levels (May et al, 2008:739), FASD is more often found in groups in which alcohol abuse is a big problem (Stewart, 2005:20). Studies of the risk factors for FASD (May et al, 2005; Viljoen et al, 2001; Urban et al, 2008), also identified socio-economic status and social circumstances as contributing factors to the high prevalence of FASD. In order to address the risk factors that span over several disciplines and fields of service, it is necessary for social work professionals to collaborate and partner with professionals from other disciplines such as health care, education, crime prevention and rural development, in order to use their diverse fields of knowledge to bring about change (Netting et al, 2004:10). In this study the ecological perspective was used as frame of reference to understand how collaboration can be used to provide services at the different levels of the community in order to overlap and strengthen existing services.

In the light of the above-mentioned facts, the literature review provided a basis for the empirical study, which aimed to investigate how different role players contribute to the

prevention of FASD. In this chapter the results of the empirical study will be presented and discussed. In order to best present the findings of the study, the data will be presented in tabular, figure or narrative form, where relevant.

5.2 DELIMINATION OF THE INVESTIGATION

Initially a literature study was conducted on each of the three topics related to the objectives of this study, namely the ecological perspective, the phenomenon and consequences of FASD and the socio-economic circumstances of women on farms. The population was selected based on the researcher's own knowledge of the population, its elements and the nature of the research aims (Ruben & Babbie, 1993: 255). The most important consideration for using purposive sampling was the judgment of the researcher as to who would provide the best information to achieve the aims of the study (Kumar, 2005:179).

The population consisted of 22 professionals in the fields of health, social work, education, FAS prevention and law enforcement. The participants were professionals who were either involved in FASD prevention services or in dealing with individuals with FASD. All the participants were working in the four communities of Robertson, Ashton, Bonnievale and Montagu. Informed consent was obtained from the participants to conduct an interview with them. For this interview, a semi-structured questionnaire (Annexure E or F) was used.

5.3 THE EMPIRICAL STUDY

The investigation can be described as a mixed method study, as described by De Vos (2005a:360). This method was used to describe both current FASD prevention efforts and to explain the need for a co-ordinated and integrated service. Data was collected by means of a semi-structured one-to-one interview (Greeff, 2005:296). A questionnaire

(Annexures E and F) allowing both structured questions and further exploration of information given was used.

The interviews were conducted in Afrikaans which is the home language of all the participants. The interviews were audio taped with the permission of the participants (Greeff, 2005:295).

The researcher had a working relationship with the participants and most of them were previously known to her. All the participants were contacted telephonically in advance to ascertain if they were willing to participate in the study and to set up an appointment at a time of their convenience. Care was taken to explain the purpose of the study, the confidentiality of the interview and that none of the information or remarks made would be coupled with a specific individual. All 22 of the prospective participants agreed to be interviewed.

The interviews were conducted in private in the participant's office with the exception of two participants who preferred to do the interview in the researcher's office. The participants were put at ease about the nature of the questions, the purpose for which it would be used and the fact that the interview was in no way an evaluation or test of their knowledge and/or programs they offered, as described by Greeff (2005:295). Each participant granted the researcher permission to use a voice recorder and signed a consent form (Annexure A or B) to be interviewed. The researcher encouraged the participants to ask for clarification if they did not understand a question.

All interviews were conducted between May and July 2011. As suggested by Greeff (2005:299), interviews were transcribed on the same day or as soon as possible after the interview. Order, structure and meaning, as described by De Vos (2005b:333), was brought to the collected data by searching for general statements among categories of data. Answers to open-ended questions were correlated with the topic and then sorted

into themes. Kumar (2005:240) refers to this process as content analysis. The process served to identify the main themes that emerged from the responses. De Vos (2005b:338) states that, in this process, the researcher identifies the salient, grounded categories of meaning expressed by the participants.

The data was then coded by marking passages in the transcribed data. These passages were then organized and written down under the themes where they belonged and divided in sub-themes where necessary. This allowed the researcher to identify consistent and relevant patterns within the data. The data is presented in the next section by means of graphs, figures and the use of narratives.

5.4 RESULTS OF THE EMPIRICAL INVESTIGATION

What follows is an investigation of existing FASD prevention services offered by welfare organizations, health services, law enforcement services, education, a NGO specializing in FASD prevention services and a joint research study conducted by the University of Stellenbosch and the University of New Mexico in the U.S.A. Findings are based on the data obtained from questionnaires in semi-structured interviews and presented with an interpretation of the data in comparison to the literature review. The findings are presented by means of a schematic exposition of the main and sub-areas that emerged from the empirical study.

Table 5.1 Schematic exposition of main areas covered by the empirical study

SCHEMATIC EXPOSITION OF MAIN AREAS COVERED BY THE EMPIRICAL STUDY	
MAIN AREAS	SUBAREAS
1. Identifying details	<ul style="list-style-type: none"> - Profession - Position in organization - Qualifications
2. Core business	<ul style="list-style-type: none"> - Core business of organization or government department
3. Prevention services	<ul style="list-style-type: none"> - Involvement in prevention of FASD - Universal prevention services - Selective prevention services - Indicated prevention services - Availability of prevention services
4. Aspects of FAS addressed by prevention programs	<ul style="list-style-type: none"> - Physical consequences of pre-natal alcohol exposure - Mental consequences of pre-natal alcohol exposure - Social and behaviour problems in affected children - Social and behaviour problems in adults pre-natally affected by alcohol - Other aspects addressed
5. Risk factors for FASD	<ul style="list-style-type: none"> - Physical factors - Psychological factors - Social factors - Drinking habits - How risk factors are addressed
6. Systems involved in prevention services	<p>Prevention services offered:</p> <ul style="list-style-type: none"> - On micro-level - On meso-level - On macro-level
7. Collaboration and co-ordination with other role players	<ul style="list-style-type: none"> - Collaboration between role players - Co-ordination between role players
8. Referral	<ul style="list-style-type: none"> - System of referrals - Frequency of referrals - Places of reference
9. Obstacles in service delivery	<ul style="list-style-type: none"> - Unplanned families - Shortage of resources - A lack of training and training material - Community factors - Individual responsibility - Low levels of education - A lack of co-ordination between organizations - Research results are not studied and implemented
10. Other comments and suggestions	<ul style="list-style-type: none"> - A lack of facilities for children with FASD - A need for drastic measures - FAS is a vicious cycle

5.4.1 Identifying details

The participants (n=22) were asked to give details about their occupation or profession, position in the organization and their qualifications. A discussion of each aspect of the identifying details follows.

5.4.1.1 *Occupation or profession*

The participants (n=22) were asked what their occupation or profession is. Table 5.2 presents an exposition of the occupation or profession of the participants.

Table 5.2 Occupation or profession

Occupation or profession	f	%
Social workers	8	36%
Community development workers	1	5%
Nurses	5	23%
Other health occupations	1	5%
Law enforcement officers	1	5%
Program coordinators	2	9%
CEO of FAS Facts	1	5%
Head of children's home	1	5%
Sonographer	1	5%
School psychologist	1	5%
Total	22	103%

n=22

The majority (eight or 36%) of the participants were trained as social workers and working either as social workers in non-government organizations (NGO's), government departments, the health sector, a children's home or as community development workers. The second largest number of participants (five or 23%) were working in the field of health services as nurses, a lay counselor, a sonographer or program coordinators. The remainder of the participants were a law enforcement officer, the CEO of FAS Facts and a school psychologist. The majority of participants are involved in either health services or social work.

5.4.1.2 *Position in organization*

The participants (n=22) were asked what position they held in the organization they were working for. Three (14%) nursing sisters were operational managers of clinics, one (5%) was a nursing sister on a mobile clinic, and one (5%) nursing sister was responsible for prevention services at a clinic. One (5%) participant was a lay counselor at a clinic and one (5%) was the coordinator of the ultra-sound services of the Department of Health. One (5%) nursing sister was a coordinator of the facility based program of the Department of Health and another nursing sister (5%) was the program manager of a Fetal Alcohol Syndrome Prevention Study. Two (9%) social workers were office managers, two (9%) were senior social workers and two (9%) were social workers at NGO's. One (5%) social worker was involved in the substance abuse program run by the Department of Social Development, one (5%) was the head of a children's home and another (5%) was a school social worker. One (5%) social worker was the development worker of a rural development organization. A school psychologist (5%) with a field work position, a law enforcement officer (5%) responsible for social crime and the CEO of *FAS Facts* (5%) also participated. The majority of the participants were employed in senior positions and was knowledgeable about the services their organization offered.

5.4.1.3 *Qualifications of participants*

The participants (n=22) were asked what their qualifications are. This gives an indication of their level of education.

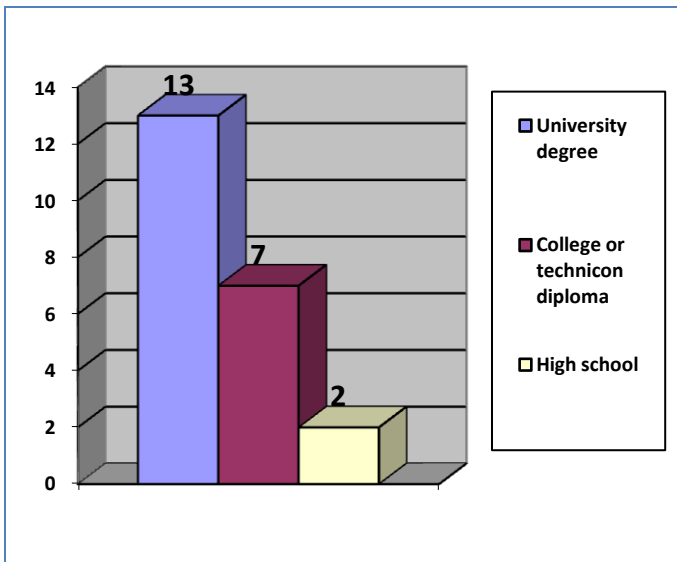


Figure 5.1 Qualifications of the participants
n=22

The majority of the participants (20 or 91%) have tertiary education of which 13 or 59% have university degrees and seven or 32%, college diplomas. The remaining two, or 9% of the participants, completed high school.

5.4.2 Core business

Table 5.3 presents the core business of the organization or government department by which each of the participants is employed.

Table 5.3 Core business of organization or government department

Core function	f	%
Health services	8	36%
Welfare services	6	27%
Education	2	9%
FAS awareness and prevention	2	9%
Law enforcement	1	5%
Rural development	1	5%
Care of terminally ill patients	1	5%
Full time care of children in a children's home	1	5%
Total	22	101%

n=22

Participants were asked what the core business of their organization or government department is. Eight (36%) participants indicated that they are primary involved with

health services and six (27%) participants indicated welfare services as their core business. The other core functions indicated, were education (two or 9%), FAS awareness and prevention (two or 9%), law enforcement, rural development, care of terminally ill patients and full time care of children in a children's home (one or 5% each). Two (9%) of the participants were of the opinion that their core business stretched over two fields, but eventually indicated the more important of the two fields.

5.4.3 Prevention services

In this section, four main questions were asked. Participants first had to indicate whether their organization or government department is involved in the prevention of FAS. Thereafter they had to indicate on which levels of prevention services are available and what these services comprise.

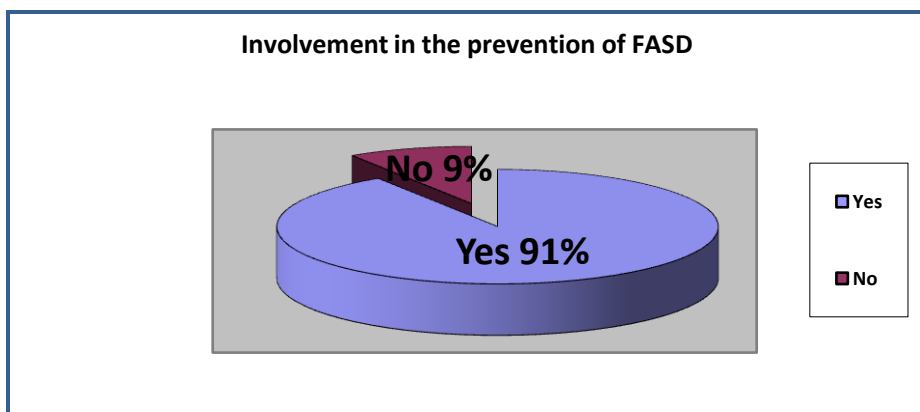


Figure 5.2 Involvement in the prevention of FASD

n=22

A total of 20 (91%) participants indicated that their organizations were involved in the prevention of FASD to some or other extent, while two (9%) said that they were not involved in FASD prevention at all.

5.4.3.1 Universal prevention services

According to May (1995:1565) universal prevention efforts can be applied to all members of the population and are aimed at reducing the existence of a problem even before it exists. May (1995:1569), states that one of the basic techniques used in universal prevention, is public education. In public education electronic and printed media and all primary institutions such as family, schools and churches can be used to provide education on the adverse effects of alcohol on the unborn child.

Participants in this study were asked to choose universal prevention services from a list and indicate if their organization offered any of these services. The services listed were general awareness programs in the community i.e. marches, newspaper articles, and awareness programs for children, teenagers, women or men. Thereafter they had to describe the universal prevention services which they offered. Ten (46%) participants indicated that their organizations offered no universal prevention services. Six (27%) participants indicated that their organization or government department offered several universal prevention services. Participants described the following universal prevention services they were involved in:

- *The main focus is to inform children about what fetal alcohol syndrome specifically is.*
Die hoofokus is om die kinders in te lig van wat fetale alkoholsindroom spesifiek is.
- *Community radio stations... advertisements where the message is given that a mother must not drink alcohol while she is pregnant.*
Gemeenskapsradiostasies... advertensies rondom waar die boodskap uitgaan 'n ma moenie alkohol drink terwyl sy swanger is nie.
- *...compiled a brochure with information for men about what fetal alcohol syndrome is and what a man can do.*
... brosjure opgestel ter inligting aan mans oor wat is fetale alkoholsindroom en wat kan die man doen...
- *An annual sounding of bells in the different towns.*
'n Jaarlikse lui van klokke in die verskillende dorpe.

- *T-shirts, caps and bracelets reinforce the message.*
T-hempies, keppies en armbandjies versterk die boodskap.

The services described, ranged from advertisements on local radio stations and annual programs such as the sounding of bells, to programs more specifically aimed at children, men and women. These services are in accordance with the universal prevention techniques and approaches described by May (1995:1569-1574). However, most of the universal prevention efforts described were focused on women, while only five (22%) of the participants had any prevention efforts aimed at men. This indicates a gap in service delivery since, according to May (1995:1572), public efforts and prevention methods should be aimed at both men and women to convey a clear message about the mutual complementary roles of the two sexes in preventing FASD.

Another four participants (18%) indicated that, although they do not offer universal prevention services themselves, they engage in universal prevention services of other organizations in the following ways:

- *We will engage in programs in the community but have never been the initiators ourselves.*
Ons sal aanhaak by programme in die gemeenskap, maar... was nog nie self die inisiëerders nie.
- *We arrange the needs assessment and the appointments.*
Die behoeftebepaling en die afspraak reël ons nou.
- *With the women we make use of the services of FAS Facts.*
Met die vroue maak ons gebruik van FAS Facts.

From the above-mentioned description of services offered, it was clear that the participants were inclined to describe all universal prevention services their organizations offered and not only those aimed at the prevention of FASD. Although it was explicitly explained that this study was not an evaluation of their services or a test for their competency, some

participants still described programs with a completely different aim, but with an occasional input about FASD, as is reflected in the following statements:

- *You address alcohol abuse...*
Jy spreek maar alkoholmisbruik aan...
- *We will usually focus on one of the aspects which is linked to health or social circumstances.*
Ons sal gewoonlik fokus op een van die aspekte wat gekoppel is aan gesondheid of maatskaplike omstandighede.

The involvement in universal prevention activities for FASD reflected in the above mentioned results indicates that FASD is in many instances still addressed as a sub-theme of alcohol abuse or general programs to enhance social functioning. Although this way of addressing FASD is in accordance with the findings of May et al (2008:751), who state that many of the risk factors for FASD are amenable to change via social improvement, these authors still recommend that FASD prevention should be formally and actively pursued in the community. On the level of universal prevention, the results of this study indicate a lack of such formal programs that are actively pursued in the community.

5.4.3.2 Selective prevention services

May et al (2007:748) describe drinking pregnant women as a substantial challenge to health care professionals. According to Marais (2006) routine screening and brief interventions in antenatal clinics is an effective, low-cost means of helping pregnant women to reduce or eliminate alcohol use during pregnancy. To determine if such selective prevention services are offered, participants were asked if their organizations were involved in short interventions with pregnant women, training of health care workers and information sessions for volunteers who are involved in the community.

Thirteen (59%) participants, of whom eight (36%) were involved in health services, indicated that their organizations were mainly involved in short interventions with pregnant

women. These short interventions with pregnant women were offered by the clinics, the sonographer in the area, *FAS Facts* and a research study operating in the area. The use of short interventions is in accordance with literature such as the Alberta Partnership on Fetal Alcohol Syndrome (1999) which describes pregnancy as the ideal time for the physician to identify a drinking problem and to intervene. May (2011) emphasizes the importance of interventions during pregnancy and refers to pregnancy as a “teachable moment”.

Where short interventions with pregnant women were offered, the content of the conversations in the clinics were described as:

- *We show them what a fetal alcohol syndrome baby looks like.*
Ons wys vir hulle hoe lyk 'n alkoholsindroom baba.
- *What damage it can do to the baby.*
Watter skade dit aan die baba kan doen.

Some of these conversations however, did not focus on fetal alcohol syndrome at all, but on alcohol abuse. This is illustrated by the following narratives of two participants:

- *I will talk to her about her alcohol abuse, but not necessarily fetal alcohol syndrome.*
Ek sal met haar gesels oor haar alkoholmisbruik, maar nie noodwendig oor fetale alkoholsindroom nie.
- *Well, I will ask her – do you drink?*
Wel, ek gaan vir haar vra – drink jy?

Social worker participants were only involved in short interventions with women who were already on their case loads and as part of their general social intervention, but not as a planned fetal alcohol prevention service. This finding is illustrated in the narratives below:

- *The local clinic is there.*
Die plaaslike kliniek is daar.
- *The case load was too... is too big.*
Die gevallelading was te ... is te groot.

It can therefore be said that the responsibility for selective interventions in the study area is mostly that of health care providers. This is in accordance with the view of Stratton et al (1996:123) who state that health care providers should deliver selective interventions and intervene in a timely and meaningful manner.

5.4.3.3 Indicated prevention services

According to the Alberta Partnership on Fetal Alcohol Syndrome (1999), a more direct approach is needed if change in drinking behaviour is not evident in short interventions. May et al (2007) describe case management and using motivational interviewing techniques, as a key factor for the successful prevention of FAS. To determine if these services were available in the study area, participants were asked if their organizations or departments were involved in indicated prevention services such as individual counseling to pregnant women or the referral of pregnant women who drink, for counseling or treatment.

Fifteen (68%) participants indicated that they are involved in some form of individual counseling. In the clinics this counseling was offered in the form of short conversations. Where pregnant women received individual counseling by social workers, it was offered to women on their existing case loads. These services were also not focused on high risk pregnant women, but consisted of general information given in counseling and were not planned or specific interventions with high risk pregnant women. This is illustrated in the narrative below:

- *There is not a specific treatment program that we use for pregnant women who abuse alcohol.*
Daar is nie 'n spesifieke behandelingsprogram wat ons volg met swanger vroue wat alkohol misbruik nie.

This is in contradiction to the advice of Stratton et al (1996:146) that high priority must be given to interventions that can effectively guide heavy drinking women through pregnancy. This should, according to Stratton et al (1996:146), include counseling to the woman and her family as well as referral of high risk women for counseling or treatment. Fourteen (63%) participants indicated that they refer pregnant women who drink for counseling or treatment. Some participants, however, indicated that they do not refer regularly. This is illustrated in the narratives below:

- *If somebody tells me she wants to stop drinking, she realizes that she has a drinking problem, I will get the social worker in, but it does not happen on a regular basis.*
As iemand nou vir my sou sê sy wil graag van die drank ontslae raak, sy beseft sy het 'n probleem, dan sal ek nou natuurlik die maatskaplike werker inkry, maar dit gebeur nie op 'n gereelde basis nie.
- *But we don't get such cases.*
Maar ons kry nie sulke gevalle nie.

Other participants indicated that they refer to social workers, but that there is a lack of support from social services as well as a lack of trust in the ability of social services to follow up on these referrals. This was emphasized by one of the participant's comments:

- *I can truly say that we get very little support.*
Ek kan vir jou eerlikwaar sê dat ons bitter min ondersteuning kry.

These comments suggest that there is a void in the delivery of indicated prevention services. May (1996:1564) stresses the importance of matching each of the levels of prevention with an aggregate level of maternal drinking and other risks in order to effectively influence the risks, causes and outcome of FASD. The importance of indicated prevention services and that it should not be compromised, is emphasized by this statement. May (1996:1565) also stresses that all the levels of prevention must be used together in order to maximize the impact of prevention services on a community.

5.4.4 Aspects of FAS addressed by prevention programs

Participants were asked on which aspects of FAS they focus when they deliver a FAS prevention service. The possibilities were listed in four categories namely physical consequences for the child prenatally exposed to alcohol, mental consequences, social and behavioural consequences and social and behavioural consequences for adults who were prenatally exposed to alcohol. Participants could choose more than one consequence in each category. These categories will be discussed in more detail below.

5.4.4.1 *Physical consequences*

Table 5.4 presents the number of participants who focused on the physical consequences for the child prenatally exposed to alcohol.

Table 5.4 Focus on physical consequences of prenatal drinking

Area of focus	f	%
Growth deficiency of the child	18	82%
Facial features associated with FAS	17	77%
Possible malformations of limbs, kidneys or brain	13	59%
Heart defects	8	36%
General health consequences	14	64%

n=22

According to Urban et al (2008:877) and Hoyme et al (2005:39) the physical consequences of alcohol exposure during pregnancy depends on the severity of the phenotype in the exposed child. At least two of the physical consequences, growth deficiency and the facial features associated with FAS, are needed for a diagnosis of FAS. As illustrated in table 5.4, most (18 or 82%) participants in this study focused on growth deficiency in the child prenatally exposed to alcohol. This area of focus is closely followed by providing information about the facial features of the exposed child (17 or 77%). The primary focus on these two areas associated with FAS, indicates that the focus of the

participants is on the physical consequences that can be expected on the severe end of the FASD spectrum.

Marais (2006) describes FAS as a significant health problem in South Africa. In support of this view, 14 or 64% of the respondents focused on the general health consequences of prenatal drinking. The possibility of heart defects is the physical consequence least focused on (eight or 36%). This correlates with the view of Streissguth (2000) who states that other major congenital malformations such as heart defects and heart murmurs, cleft lip and palate and malformations of the limbs and joints are often found, but are not necessary for a diagnosis of FAS.

5.4.4.2 Mental consequences

Table 5.5 reflects the focus of the participants on the mental consequences of prenatal drinking in FAS prevention programs.

Table 5.5 Focus on mental consequences of prenatal drinking

Area of focus	f	%
Structural damage to the brain	15	68%
Mental retardation	18	82%
Loss of intelligence	16	73%
Problems with memory	15	68%
Learning difficulties	19	86%
Problems with attention	15	68%
Problems with abstract thinking	11	50%
Problems with motor co-ordination	9	41%

n=22

The table demonstrates a very high focus on learning difficulties as indicated by 19 (86%) of the participants. This confirms the work of Kalberg and Buckley (2006:59) who state that, in most cases, children who were prenatally exposed to alcohol come to the attention of the education system because of the learning difficulties they display. These authors further state that 50% of children with FAS are mentally retarded. These findings are

supported by the views of 18 (82%) participants who focused on the possibility of mental retardation as a consequence of prenatal drinking. In addition to this, another 16 (73%) focused on the loss of intelligence. This is in accordance with a statement by Kodituwakku et al (2006:1551) that children on the FASD spectrum display intelligence deficits and that their average IQ's fall in the borderline range.

Mattson and Riley (1997:10-12) describe structural damage to the brain in children with FAS, such as a smaller brain size than can be expected in a normal child, reduction in the size of the cerebellum as well as damage in some brain structures. According to Mattson and Riley (1997:10-12), cellular damage as well as shrinkage can appear in the basal ganglia and the corpus callosum, damaging communication pathways between the two hemispheres of the brain. Fifteen (68%) of the participants were aware of this possible damage and included information regarding structural damage to the brain in their prevention programs.

Fifteen (68%) participants focused on problems with memory and problems with attention. Problems with memory and attention are described by Kalberg and Buckley (2007:280) as cognition-based difficulties which have an influence on the executive functioning abilities of the individual. The understanding of abstract concepts is another ability affected by maternal drinking during pregnancy. Miller (2005) confirms that students with FAS have difficulty in understanding abstract concepts such as "cause and effect" and "consequences". Eleven (50%) of the participants supported these findings by including this fact in their prevention programs.

Motor co-ordination is an area of focus for nine (41%) of the participants. Both fine and gross motor delays are associated with damage to the cerebellum and often parallel cognitive delays in children with FAS (Kalberg et al, 2006:2038). The general awareness of participants about the mental consequences of prenatal alcohol exposure supports the

literature which states that, since so many regions of the brain are affected by prenatal alcohol exposure, a wide range of disturbances can be exhibited and that the nature of the damage caused, is extremely variable (EBSCO Publishing, 2008a; Kalberg et al, 2006:2038; Mattson and Riley, 1997:10-11).

5.4.4.3 Social and behaviour problems

According to the literature (Kodituwakku et al, 2006:1551-1552), alcohol-exposed children exhibit more behavioural problems than their typically developing peers and even refer to a cluster of behaviour problems in children with FASD. Participants were asked to indicate the social and behavioural problems in children with FASD on which they focus in their prevention programs. Table 5.6 presents a composition of the aspects of social and behaviour problems on which participants focused.

Table 5.6 Focus on social and behaviour problems in affected children

Area of focus	f	%
Problems with social adjustment	15	68%
Poor judgment	13	59%
Inability to understand the motives of others	10	46%
Exploitation of children	10	46%
Hyperactivity	12	55%
Inattentiveness	16	73%
Lying	12	55%

n=22

As indicated in the above table, problems with social adjustment was the focus of 15 (68%) of the participants. This finding supports the literature which describes the behaviour problems associated with FASD as 'particularly in the realm of social adjustment'. Hoyme et al (2005:45) refer to deficient social interactions such as a lack of awareness of consequences of behaviour and poor judgment. This view is supported by 13 (59%) participants who focus on poor judgment as a consequence of drinking during pregnancy. Ten (46%) participants included exploitation of children as well as their inability to understand the motives of others. This exploitation, as well as lying which was

addressed by 12 (55%) participants, is often the result of poor judgment and a lack of awareness of the consequences of behaviour as described by Hoyme et al (2005:45).

Various researchers (Kodituwakku et al, 2006:2552; Hoyme et al, 2005:45; Streissguth, 2000; Golden, 1995:162) describe behaviour problems such as hyperactivity, inattentiveness, aggressiveness and emotional liability. Whereas twelve (55%) participants focused on hyperactivity, the social and behavioural area on which was focused on most, was inattentiveness (16 or 73% of the participants). These results indicate that participants were aware of the social and behaviour problems associated with FASD and include this information in their prevention programs.

5.4.4.4 Social and behaviour problems in adults

The participants were asked on which social and behaviour problems they focus in their programs with adults who were prenatally affected by alcohol. Astley and Clarren (2001:147) describe FAS as a permanent birth defect syndrome of which, according to Golden (1995:164), even early intervention cannot fully erase the damage done by alcohol prenatally. Jacobson and Jacobson (2002:283) state that behaviour problems which become evident in childhood do not improve as the person reaches adulthood.

Table 5.7 Focus on social and behaviour problems in adults prenatally affected by alcohol

Area of focus	f	%
Involvement in illegal activities	19	86%
Misuse of alcohol and drugs	12	55%

n=22

According to table 5.7 the focus of 19 (86%) participants was on the possibility that adults with FAS may get involved in illegal activities. This supports the literature (Jacobson & Jacobson, 2002:283) that adults with FAS are more likely to get into trouble with the law. Golden (2005:162) states that the brain impairments caused by prenatal alcohol exposure

creates an inability to resist involvement in illegal activities as well as a lifelong problem refraining from alcohol and drugs. Twelve (55%) participants supported this view by including the possible misuse of alcohol and drugs by adults with FAS in their prevention programs.

These findings reflect a high awareness of the social and behaviour problems caused by alcohol exposure which is often obvious in adulthood. It is also an indication of the realization that FAS is a permanent condition which affects not only behaviour, but also normal functioning into adulthood.

5.4.4.5 Other aspects of FAS addressed

When asked to describe other areas of focus in their services and programs, responses indicated that the focus of services concerning fetal alcohol syndrome is often on the various developmental needs of the child who already has FAS and not necessarily on the prevention of FAS. This is illustrated by the following comments:

- *We do the developmental screening.*
Ons doen mos die developmental screening.
- *Examinations of the newborn baby to determine if earlier diagnoses can be made in order to start interventions with the child at an earlier stage.*
Ondersoek van die pasgebore baba om te kyk of 'n mens 'n vroeër diagnose kan maak sodat intervensie met die kind op 'n vroeër basis kan plaasvind.

This approach is also found in the work of Stratton et al (1996:114) who state that, after the birth of an FAS child, there are two targets for intervention – the mother and the child. These authors describe both mother and child as patients in need of care, a target for treatment and maintenance as well as prevention intervention for having another child with FAS. Kalberg and Buckley (2006:279) agree with this view, stating that the ability to function as an independent adult starts with an early focus on the academic and functional abilities of the affected child.

Other participants indicated that they focus on life skills. This is indicated by one of the participant's statements:

- *We incorporate life skills. Many of your FAS children who become adults with FAS do not have life skills and it is more important for them to learn life skills than to learn the alphabet.*

Ons inkorporeer life skills. Baie van jou FAS kinders wat dan FAS volwassenes raak, het nie life skills nie en dis eintlik vir hulle belangriker om life skills aan te leer as die alfabet.

This is in accordance with literature (Parry, 2005a:23) which advocates the incorporation of life skills in prevention programs in schools to enhance the effectiveness of such programs.

5.4.5 Risk factors for FASD

In this section participants were asked what, in their opinion, the maternal risk factors for having a child with FAS is. Participants could choose more than one option in four different categories, namely physical factors, psychological factors, social factors and drinking habits. Each of these categories is discussed below.

5.4.5.1 *Physical risk factors*

The physical risk factors listed in the questionnaire were all factors that previous research (May et al, 2008:749; Urban et al, 2008:877; May et al, 2005:1190; Viljoen et al, 2005:598) proved as maternal risk factors for having a child with FASD. Figure 5.3 gives an indication of the awareness of these maternal physical risk factors for having a child with FASD.

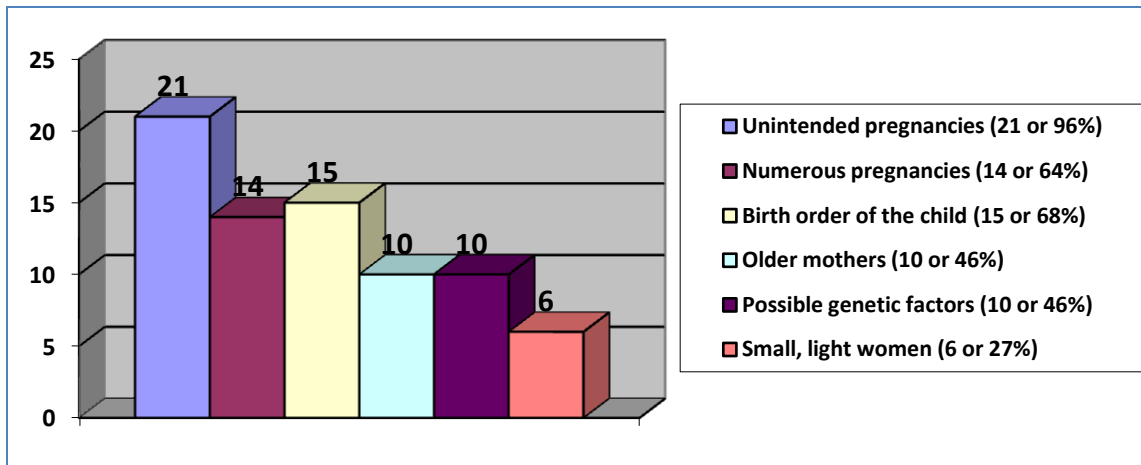


Figure 5.3 Physical risk factors for FASD
n=22

There is high awareness of the risk of unintended pregnancies (21 or 96%) among participants. This is in accordance with Urban et al (2008:882) who state that unplanned pregnancies prevent modification of drinking behaviour in early pregnancy and therefore creates a high risk for having a child with FASD. Ten (46%) participants considered older mothers as at high risk for having a child with FASD. This supports the literature (May et al, 2008:749; Urban et al, 2008:877; May et al, 2005:1190), which considers older women as at high risk for having a child with FASD. Advanced maternal age also goes, according to May (2008:742), hand in hand with higher gravidity or number of pregnancies. Numerous pregnancies were identified by 14 (64%) of the participants as a maternal risk factor for FASD.

May et al (2008:740) states that alcohol abuse and FASD tend to cluster in families. This is an indication that both social and genetic factors play a role in the development of FASD. The possibility of genetic factors as a risk factor was, however, indicated by only ten (46%) participants. Participants also had a high level of awareness of the risk factors concerning the birth order of the child. Fifteen (68%) participants identified birth order of the child as a risk factor. This supports the findings of May et al (2008:742). The factor that was considered a risk by the least number (six or 27%) of participants is the smaller

physique of women. This is in contradiction with the findings of researchers (May et al, 2008:747; May et al, 2005:1196) that mothers of children with FAS were significantly smaller than the mothers of controls in their studies.

In a follow-up question participants were asked how their department or organization addressed the physical risk factors for FASD. Twelve (55%) participants indicated that they address the physical risk factors by introducing and promoting different forms of birth control, including sterilization. This is indicated by the following narratives:

- *...Reproductive sexual health program includes the availability of different methods of birth control, encouraging people to use it and to plan their families.*
...Reproductive sexual health program sluit in dat ons verskillende gesinsbeplanningsmetodes beskikbaar moet hê, mense moet aanmoedig om dit te gebruik en hulle gesinne te beplan.
- *If they get to a fourth or fifth pregnancy, I'll try to motivate them to get sterilized and if they don't want to, to come in for their depo regularly!*
As hulle nou by die vierde of vyfde swangerskap trek, dan probeer ek hulle motiveer om te steriliseer of as jy dan nou nie wil nie, kom gereeld vir jou depo!

This is supported by the literature (May et al, 2007:749) which describes birth control, together with drinking cessation, as part of a dual approach to FAS prevention. May (1995:1582) also advises aggressive education about - and referral to - birth control services. A drinking woman using birth control is also referred to as part of a “protected category” (May et al, 2007:758).

Adding nutritional supplements to the diets of pregnant women was another way clinic personnel addressed physical risk factors. This is indicated by the following statement:

- *We give folic acid to everybody and then, if the HB is low, they get vitamin C and they all routinely receive iron supplements.*
Ons gee vir almal foliensuur en dan as die HB laag is, kry hulle vitamien C by en hulle kry almal roetine yster.

This action is in accordance with literature (May et al, 2008:750) which refers to life-long and current poor nutrition as one of the risk factors which contributes to the high rate of FAS.

The ten participants (45%) who did not address physical risk factors explained their non-involvement as follow:

- *No, because we work with general awareness programs.*
Nee, want ons werk met algemene bewusmakingsprogramme.
- *We are not geared to work in that field.*
Ons is nie so gerat om op daai gebied in te gaan nie.

This indicates that their involvement was in other fields of specialization such as primary prevention through general awareness programs. The use of different fields of specialty in FAS prevention, is described by May and Hymbaugh (1989:510) and in accordance with literature.

5.4.5.2 Psychological risk factors

Psychological factors were widely recognized by the participants as maternal risk factors for having a child with FASD. Depression and poor life goals were each indicated by 21 (96%) of the participants and low self-esteem by 20 (91%) of the participants. These findings are in accordance with the opinion of May et al (2008:740) who state that maternal risk factors involve an interaction of physical, familial, historical, social and psychological influences. It also correlates with the findings of Schumacher, Coffey and Stasiewics (2006:424) that PTSD symptom severity predicted trauma-elicited alcohol craving.

However, the responses as to what service organizations offer to address these factors indicated that very few services are available to address psychological risk factors. Ten (46%) participants stated that they only address psychological factors through referral to other role players while six (27%) participants did not address psychological factors at all.

Only six (27%) participants addressed these risk factors individually or in therapeutic groups. However, when participants indicated that their services included therapeutic groups, these services did not include psychological therapy but consisted of building self-esteem in group members.

In addition, addressing psychological risk factors are, according to the participants, problematic because:

- *We have very few resources. We don't have a full time psychologist.*
Ons het baie min resources. Ons het nie 'n voltydse sielkundige nie.
- *We are under capacity as far as psychologists are concerned.*
Ons is onder kapasiteit sover as dit sielkundiges aangaan.

From the abovementioned narratives it is clear that participants experienced a shortage of resources to address psychological resources. These findings correlate with a South African study by May et al (2008:749) who found that women who have children with FAS have fewer social resources than women in more developed populations.

5.4.5.3 Social risk factors

Participants were asked to indicate which social factors they considered as risk factors for FASD. The findings presented in figure 5.4 were obtained:

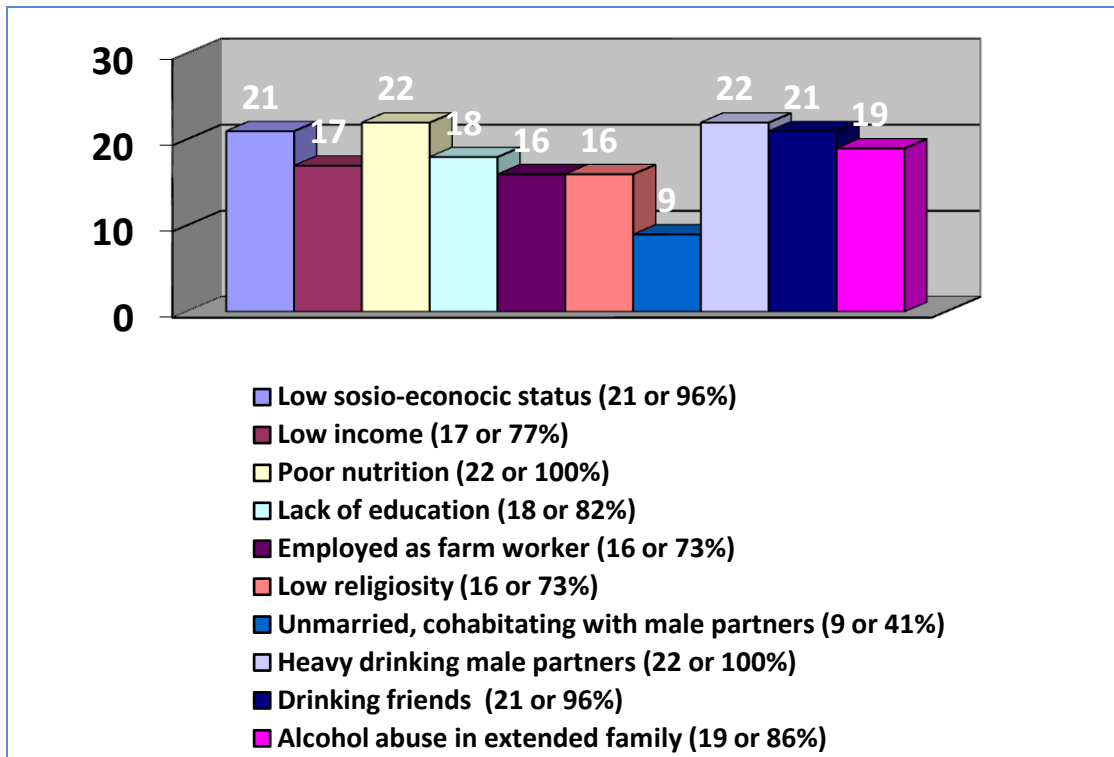


Figure 5.4 Social risk factors for FASD

n=22

All the participants (22 or 100%) regarded poor nutrition and heavy drinking male partners as social risk factors for FASD. Drinking friends and low socio-economic status were considered social risk factors by 21 (96%) participants. Nineteen (86%) participants thought that alcohol abuse in the extended family was a risk factor and 18 (82%) described lack of education as a social risk factor. Low income was indicated as a social risk factor by 17 (77%) participants and low religiosity and employment as farm worker by 16 (73%) participants each. Only nine (41%) participants were of the opinion that unmarried women cohabitating with male partners had an elevated risk for having a child with FASD.

The abovementioned risk factors are described in the literature by May et al (2008:749 - 750) who state that, in their study, women with children with FASD had low socio-economic status, were more likely to be cohabitating without being married, their extended families and friends were drinking heavily and they suffered poor nutrition. Viljoen et al (2002:16) found that mothers of children with FAS had less formal education than mothers

of controls. These authors further refer to religiosity as a stabilizing force in the lives of control mothers and confirm the high social risk attached to low income- and farm workers.

Although the findings in this study reflect a high awareness of the risk of social factors contributing to FASD, it was evident from the following narratives that there was a lack of trust in social workers to follow up on references and to deliver services:

- *As I said, we get very poor support from them (social services).*
Soos ek vir you sê, ons kry baie swak ondersteuning van hulle (maatskaplike dienste) af.
- *We report, but nothing is done about it. The resources are limited because there are so few social workers and the clinics are so busy. You talk a little and then you send them on.*
Ons meld aan, maar daar word niks aan gedoen nie. Die bronne is beperk omdat daar so min maatskaplike werkers is en die klinieke is so besig. Jy praat so 'n bietjie en dan stuur jy hom aan.
- *The referral is done, but if anything happens thereafter, that is the problem.*
Die verwysing word gedoen maar of daar dan iets gebeur is die probleem.

This situation contradicts the findings of May et al (2007:747) who recommend case management as a technique that should be used with women who have a very high risk for having a child with FASD. Case management is further described by May et al (2007:757) as a key intervention in preventing FASD. May (1995:1589) argues that although FAS will never be completely eliminated, it can be reduced substantially through supportive counseling services and case management. This view is supported by Stratton et al (1996:142) who state that alcohol abusing women who have FAS children can be helped effectively through intensive case management. Current research in Wellington shows, according to Snell (2011), a reduction in the total number of drinks consumed while women were in case management. Snell (2011) makes the conclusion that utilizing case management as a prevention method is useful to help women abstain from or reduce their alcohol intake during pregnancy.

One of the ways in which participants addressed social risk factors was through their involvement in some kind of feeding scheme. This is illustrated by the following narratives:

- *At the moment we have food parcels that we distribute.*
Ons het nou op die oomblik het ons kospakkies wat ons uitdeel.
- *If it is a pregnant mother with a specific BMI, then we will put her on the PEB scheme, yes. It is the high protein feeding scheme.*
As dit 'n swanger mamma is met 'n spesifieke BMI dan sal ons vir haar op die PEB skema sit, ja. Dit is die hoë proteïen voedingskema.

Addressing nutrition as a social risk factor for FASD is in accordance with the literature. May et al (2005:1197) and Viljoen et al (2005:15) refer to the effects of life-long poor nutrition as a risk factor for FASD. However, even though all the participants (22 or 100%) recognized poor nutrition as a risk factor, it is noteworthy that only six (27%) participants considered small light women as being at higher risk for having a child with FASD. From the above it can thus be assumed that the participants did not link small, light women with poor nutrition.

5.4.5.4 Drinking habits

All the participants (22 or 100%) agreed that drinking throughout pregnancy, any amount of drinking during pregnancy, drinking in the first trimester, binge-drinking as well as heavy drinking during pregnancy are maternal risk factors for having a child with FASD. The only factor that was not indicated by all the participants, is initiating drinking at an early age (19 or 86%).

These findings are in line with the work of May et al (2008:742-744) who found that mothers of children with FAS drank more in all three trimesters than controls and that binge-drinking was reported in 81% of the mothers in their study. Although initiating drinking at an early age is considered a risk factor in developed countries, a study by May et al in South Africa (2005:1196) could not confirm this finding in the study community.

The fact that there was doubt in some participants about this risk factor is therefore in line with findings in literature.

The participants in this study stated that they address the drinking habits of pregnant women in various ways. In clinics it takes the form of short conversations with pregnant women as are illustrated by the following narratives:

- *I tell them, if you know you are planning a child, don't drink or if you like your booze, stop drinking. When the baby is born you can catch up on all the drink that you missed.*
Ek sê man, as jy weet jy gaan 'n kind beplan moenie drink nie, of jy hou van die doppie, stop om te drink. As die baba gebore is kan jy al daai drank wat jy gemis het maar weer inhaal.
- *We encourage them from the start to drink less if they can't stop drinking completely, and we talk about it constantly.*
Ons moedig hulle maar van die begin af om, as hulle nie kan ophou nie dan lat jy nou bietjie minder drink en jy praat aanhou daaroor.
- *We talk to them yes, but most of them don't listen to us anyway.*
Ons gesels met hulle ja, maar die meeste hoor tog in elk geval nie wat ons sê nie.

Although the use of short conversations are in accordance with literature (May et al, 2007:749; Stratton et al, 1996:123), these authors state that it is not enough for health care workers to ask women about their drinking habits, but that all aspects of alcohol abuse should be discussed. It is, according to these authors, also important that women are questioned in an appropriate manner about their drinking histories.

In contrast with the abovementioned, participants who were not working in health settings did not focus their services on short interventions with pregnant women. They directed their services to fit the needs of their own client bases. These services ranged from general awareness programs, to providing role models in children's homes and involving men in prevention programs for alcohol abuse. This approach is supported by May (1995:1549) who suggests the use of multiple approaches and the use of a variety of disciplines to form a comprehensive approach to the prevention of FASD. Parry

(2005a:23) further refers to peer education, involving parents and the community and incorporating life skills to enhance the effectiveness of prevention efforts. This indicates that different organizations and government departments can, and should, use their own strengths and existing services to contribute to a comprehensive prevention effort.

5.4.6 Systems involved in prevention services

Participants were asked whether and where their organization or department offered FASD prevention services or campaigns during the past year. . Participants were allowed to choose more than one option on each of the three levels (the micro-level, meso-level and macro-level).

5.4.6.1 *Prevention services on micro-level*

Donald et al (2002:51) refer to microsystems as small systems such as the family, working environment or school in which people are closely involved, in continuous, face-to-face interactions with familiar people. Table 5.8 indicates the number of participants who indicated that they delivered a specific FASD prevention service on micro-level.

Table 5.8 FASD prevention services on micro-level

Prevention services on micro-level	f	%
In case management with individuals with high risk drinking behaviour	10	46%
To the family or partners of high risk drinking women	11	50%
To church groups	5	23%
To groups of workers on farms	9	41%
In therapeutic groups for women with high risk drinking habits	9	41%
In therapeutic groups for pregnant teenagers	5	23%

n=22

Table 5.8 shows that, at the micro-level, the highest level of involvement in FASD prevention services is with the family or partners of high risk drinking women as reported by 11 (50%) participants. There are also higher levels of involvement in case

management with individuals with high risk drinking behaviour (10 or 46%) and groups of farm workers as well as therapeutic groups for women (nine or 41%) than for pregnant teenagers or church groups (five or 23%) respectively. These services were, however, not specifically targeted toward FASD prevention but were part of the participants' general service delivery.

These services are in accordance with the description of Ott et al (2004:3) who state that services on the micro-level include an individual's social networks, social supports (i.e. church groups), family or partners, work groups, peers (such as in therapeutic groups for women with high risk drink behaviour and pregnant teenagers) and neighbours. It also takes into account the individual's knowledge, attitudes, values, behaviour and self-esteem. FASD prevention services on this level therefore exist in this community although not in all microsystems or to the extent that it is needed.

5.4.6.2 Prevention services on meso-level

Participants were asked to indicate if they were involved in any of the services on meso-level as indicated in table 5.9.

Table 5.9 FASD prevention services on meso-level

Prevention services on meso-level	f	%
In schools	6	27%
In day care or after school centers	6	27%
In clinics	12	55%
In hospitals	3	14%
In businesses or other places of employment	6	27%

n=22

On the meso-level, the highest involvement in prevention services was with FASD prevention services delivered in clinics (12 or 55%). These services were offered by clinic personnel, welfare organizations, a research group as well as *FAS Facts*. Stratton et al (1996:123-124) confirms the importance of FASD services in clinics and the role of health care workers by contending that the role of the primary health care professional in

prevention cannot be overstated. Services in hospitals were, however, limited and offered by only three (14%) participants. This situation is not in line with literature. Masis and May (1991:484) describe a hospital based, comprehensive approach to the prevention of fetal alcohol syndrome which combines clinical assessment, community outreach, and epidemiologic knowledge in order to address alcohol-related birth defects.

The six (27%) participants who delivered services in schools, day care and after care centers, in many instances did this in collaboration with *FAS Facts* who were responsible for presenting the programs. Literature (May, 1995:1559) is in support of such collaboration and state that all major institutions such as economical, educational and religious institutions must be utilized as agents of change in the prevention of FAS. The six (27%) participants who offered services in places of employment were therefore in accordance with literature too. Places of employment in this instance referred to farms where programs were offered to farm workers who also lived on the farm. This service therefore also included a service on micro-level since the workers' neighbours and members of their households were included in the programs. In general, however, the services delivered on meso-level were fewer than the services on micro-level.

5.4.6.3 Prevention services on macro-level

Intervention strategies on the macro-level include, according to Ott et al (2004:3), community development strategies, mass-media campaigns, the development of coalitions, legislation and policies. Participants were asked to indicate in which of these services they were involved. Table 5.10 reflects their involvement on this level.

Table 5.10 FASD prevention services on macro-level

Prevention services on macro-level	f	%
By entering in collaboration agreements with other role players	7	32%
By influencing community resources and their policies regarding FAS prevention services	5	23%
Through community development campaigns	8	36%
By influencing government policy regarding FAS prevention	6	27%
Through mass-media campaigns	3	14%

n=22

As indicated in the above table, the participants' involvement in prevention services on macro-level is, although in line with literature, low. The highest level of involvement on this level was in community development campaigns (eight or 36%) and the lowest level of involvement was in mass-media campaigns (three or 14%).

According to Stratton et al (1996:116) prevention efforts should also involve changes to the social environment. This includes laws and regulations that depict heavy drinking and alcohol abuse as unacceptable. In this study, only six (27%) participants were involved in actions that could potentially influence government policy regarding FAS prevention. Seven (32%) participants entered collaboration agreements with other parties, which will be discussed in more detail in the next section. Although the services on the macro-level are in accordance with literature, it does not seem that there are enough services available to form a comprehensive approach which provides overlapping levels of reinforcement on all the levels of prevention as described by Stratton et al (1996:113).

5.4.7 Collaboration and co-ordination with other role players

5.4.7.1 *Collaboration with other role players*

Participants were asked if they collaborate with other organizations, government departments or individuals in delivering FASD prevention services. Figure 5.5 reflects the

participants' opinions about collaboration with other organizations, government departments and individuals.

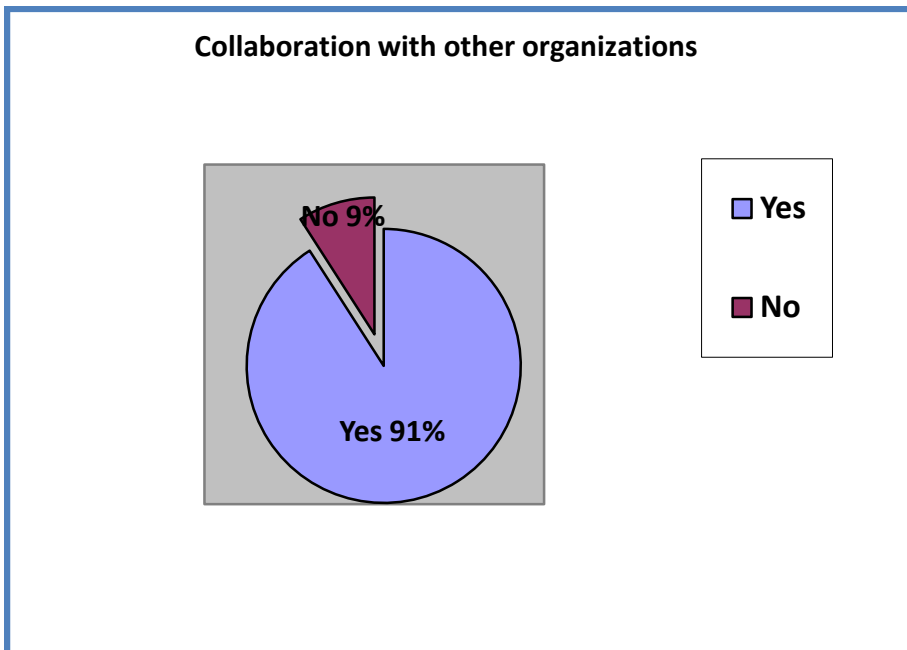


Figure 5.5 Collaboration with other organizations
 $n=22$

As seen in figure 5.5, an overwhelming majority (20 or 91%) of the participants indicated that they collaborate with other organizations or departments. Participants who responded positively named collaboration with NGO's, clinics, various government departments, rehabilitation centers, research groups, the local municipality, the Lotto, South African Breweries and organizations such as Pebbles and Dopstop. When asked to describe how they collaborate, the narratives included:

- *We absolutely give our support to their program in the schools.*
Ons gee absoluut ons ondersteuning tov hulle program in die skole.
- *It was more in the form of support services.*
Dit was meer ondersteuningsdienste.
- *We just join in with their programs.*
Ons skakel mos net in by die programme.
- *If we have an information session or something, we invite the social worker or she invites us to join them.*

As ons 'n praatjie of 'n ding het, dan nooi ons die maatskaplike werker of sy nooi weer ons om daar in te skakel by hulle.

The narratives above clearly indicate that organizations are showing support for and are joining in with each others' programs. They are also inviting other organizations to join in with their programs. These responses indicate general positive relationships between organizations, government departments and individuals in the field of FASD prevention services. It also indicates a sensitivity not to duplicate services, but provides no proof of active collaboration to enhance the quality and range of services.

Active collaboration and comprehensive programs is, however, much needed for successful prevention programs. May (1995:1589) states that a variety of levels of public health initiatives and a variety of genuinely humanitarian and therapeutics acts may benefit many individuals as well as society overall. Although there are positive movements towards collaboration, these findings do not support the opinion of May (1995:1557) that effective prevention programs should use broad bases of knowledge and several perspectives to carry out community-wide prevention programs.

5.4.7.2 Co-ordination with other role players

Figure 5.6 offers a summary of the responses of the participants to the question if their organization's FASD prevention services are co-ordinated with those of other organizations, departments and individuals.

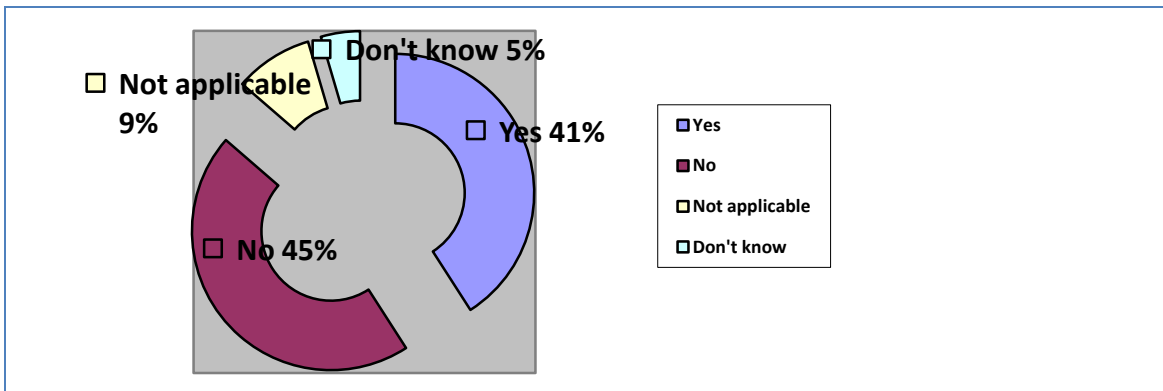


Figure 5.6 Co-ordination between role players

n=22

Only 9 (41%) participants were of the opinion that services were co-ordinated between organizations. However, when asked how these services were co-ordinated, the responses varied. Some participants saw sharing dates of events or inviting other organizations to their events as co-ordination. This can be seen from the narratives below:

- *...gave our dates in advance to all the others and they gave us theirs and in that way we joined in with each others' programs and it worked well.*
... ons datums vooruit vir al die ander gegee en dan het hulle hulle s'n gegee en so het ons maar by mekaar se projekte ingeskakel en dit werk baie goed.

Two (9%) participants mentioned the existence of co-ordinating committees such as welfare forums:

- *We are part of the regional welfare forum in which all the social workers in the area are included.*
Ons is deel van die streekswelsynsforum waarby al die maatskaplike werkers in die area deel is van.
- *It is the substance abuse forum or co-ordinating committee or something for which we get representatives from all the organizations together.*
Dit is nou die substance abuse forum nè of koördineringskomitee of iets wat ons nou die verteenwoordigers van verskillende organisasies hier kry.

Other participants however, denied the existence of such co-ordinating committees as expressed by one participant:

- *Not that I know of - whether there is an overall committee - and if there is, I am not aware of it.*

Nie wat ek van weet dat daar 'n oorhoofse komitee is nie en as daar is, is ek nie daarvan bewus nie.

There were, however, also participants who said that they do co-ordinate, but did not have much faith in the co-ordination. This was expressed in the following narratives:

- *You will get one or two NGO' who will take hands because they share the same field of interest, but my feeling is that it is the absolute minority.*

Jy sal een of twee NGO's kry wat vanweë dieselfde belangstellingsrigtings heel waarskynlik met mekaar hande vat, maar my gevoel is dit is in die absolute minderheid.

- *On FAS Day you might do something together but that is where it starts and ends.*

FAS Dag sal jy miskien iets saam doen, maar dit is waar dit begin en eindig.

Several of the responses indicated that, although there is co-operation between organizations, there is no formal co-ordination. It also described existing co-ordination as loose and informal, as indicated by the following narratives:

- *I think it was more of a loose co-ordination.*

Ek dink dit was meer 'n losse koördineringsgewees.

- *Yes, I'll say it is more of an informal co-ordination, yes.*

Ja, ek sal sê dit is meer van 'n informele koördinerings, ja.

- *Not really co-ordinated, no.*

Nie regtig gekoördineer nie, nee.

The diversity of opinions about co-ordination again points toward a general willingness to co-operate with other organizations and role players, but only on the level of attending each other's projects, cognizance of dates on which other role players plan projects and giving each other support by allowing certain organizations to work in schools or clinics for instance. It seems however, that comprehensive approaches which combine various levels of prevention and multiple approaches are not only rare in literature, but also in practice (May & Hymbauch, 1989:509). May (1996:1559) however also states that all major institutions should, whenever possible, be tapped and utilized as agents of change.

This kind of collaboration is also the aim of the ISDM (2006:07) which has adopted a developmental approach to service delivery. This approach demands that services are intersectoral and that the different government departments and sectors integrate their services.

The ISDM (2006:18) calls on government departments to co-ordinate their policies and to follow a holistic approach to address the complex and multi-dimensional social issues in our society. This approach requires the different departments to understand the roles and responsibilities each other has. It further requires integrated developmental efforts between departments as well as integrated efforts on the different levels of the social environment. Finally, it is requires that all three levels of prevention are used.

5.4.8 Referral

The system of referrals between non-government organizations and government departments were explored. Discussions of the system of referrals, the frequency of referrals and places of reference follow.

5.4.8.1 *System of referrals*

In this section participants were asked which system of referral exists between role players in the field of FAS. The general consensus was that there either is no formal system of referrals or that the participants did not know about the existence of such a system. The following narratives illustrate this:

- *Well, if you know about it and I don't know about it, you must tell me.*
Wel, as jy weet van hom en ek weet nie van hom nie, moet jy vir my sê.
- *You know, no. We don't have formal systems for referral.*
Weet jy, nee. Ons het nou nie formele verwysingsisteem nie.
- *There are no formal agreements.*
Daars niks formele ooreenkomste nie.

Participants also agreed on the fact that referrals take place on an informal basis between the different role players, as illustrated by the following narratives:

- *I would say it is informal between people - between specific people who deliver services.*
Ek sou sê dis informeel tussen mense – tussen spesifieke persone wat dienste lewer.
- *Informal yes, yes.*
Informeel ja, ja.

Referrals, however, have its own frustrations and in some cases cause people to fall through the system and do not get the services they desperately need. This is, as one participant stated, caused by a lack of support from other organizations or departments and a lack of resources:

- *We don't have support from Social Development. We don't have enough psychologists, so I don't think we have enough resources to which we can refer. No, I know this for sure. It would be wonderful if we had enough resources to address the problem. You see, it is s very easy to say do this or do that, but yes, what do you have to do, where do you refer to? We don't have anybody.*
Ons het nie ondersteuning van Social Development nie. Ons het nie genoeg sielkundiges nie, so ek dink nie ons het genoeg hulpbronne waarheen ons kan verwys nie. Nee, ek weet dit verseker. Dit sou wonderlik gewees het as mens genoegsame hulpbronne gehad het om die probleem aan te spreek. Jy sien, dis maklik om te sê: OK goed, doen dit of doen dat, maar ja, wat doen jy dan, na wie toe verwys jy? Ons het nie.

The frustrations caused by the above-mentioned informal or, according to some participants, non-existing system of referrals is also addressed and supported by literature. Marais (2006) advises that appropriate referral systems have to be put in place to increase the efficacy of interventions. Further, May (1995:1579) states the importance of empathic and motivational referral of especially those women who are resistant to services, as well as the importance of heavy drinking women receiving first priority to be enrolled in alcohol treatment programs. From the findings above, it is clear that a need for an appropriate system of referral exists.

5.4.8.2 Frequency of referrals

Participants were asked to indicate how often they referred an individual or group that needed services to any other role player during the past year. Table 5.14 provides a summary of the frequency of referrals.

Table 5.11 Frequency of referrals

Frequency	f	%
Never	13	59%
Weekly	1	5%
Monthly	3	14%
Quarterly	3	14%
Annually	2	9%
Total	22	101%

n=22

The largest number (13 or 59%) of participants never referred service users to any other organization to provide a FASD prevention service. Another two (9%) participants referred to another service provider just once during the past year. Three (14%) of the participants made quarterly referrals. Only one (5%) of the participants made weekly referrals and three (14%) of the participants referred monthly.

These findings are in contrast with the literature which suggests that voluntary referral to therapy for alcohol abuse should be pursued empathically but aggressively (May, 1995:1582) and that, as soon as a problem is identified by the health care worker, an appropriate interventional or treatment referral must be made (Stratton et al, 1996:131).

5.4.8.3 Places of reference

A question asking participants to indicate which services they referred to, led to the following answers:

- *Normally when it comes to the point where it is about medical aspects, we will refer to a doctor.*

Gewoonlik as dit by daai punt kom wat dit oor die mediese aspekte gaan, dan verwys ons.

- *Yes, see if we pick up something we will refer to the ACVV.*

Ja, kyk as ons nou iets optel nè, dan verwys ons na die ACVV toe.

- *We refer to Social services, to FAS (Fetal Alcohol Syndrome Epidemiological Research), to Home Base (Home Based Care), to BRAM (BRAM Care Centre), to the police, to the court or to the school psychologist.*

Ons verwys na die maatskaplike dienste, na FAS, na Home Base, na BRAM, na die polisiediens, na die hof of na die skoolsielkundige toe.

These referrals to service providers of different disciplines are supported by literature when May (1995:1558) state that quality treatment, which should be based on both behavioural and medical therapy, is a very important part of the overall solution to substance abuse problems. However, referring medical problems or social problems only, as indicated in the above narratives, is not in accordance with literature. The importance of combined efforts by various disciplines to prevent FASD is accented repeatedly in literature (Rendall-Mkosi et al, 2008:62; Miller, 2005; Parry, 2005a:24; Stratton et al, 1996:113; May 1995:1559).

5.4.9 Obstacles in service delivery

Participants were asked what they see as obstacles in the delivery of FAS prevention services. Tables 5.12 – 5.19 summarize the subthemes that emerged from their answers. These themes occurred in the empirical data gathered from participants who had different perspectives on FASD and the field of service required to address this problem.

5.4.9.1 Unplanned families

Table 5.12 Obstacles in the delivery of prevention services

THEMES: OBSTACLES IN THE DELIVERY OF FAS PREVENTION SERVICES		
SUB-THEMES	CATEGORY	NARRATIVES
Unplanned families	Lack of family planning	<p><i>"Families are not planned. I think most pregnancies are <u>unplanned</u>."</i></p> <p>"Gesinne word nie beplan nie. Ek dink die meeste is onbeplande swangerskappe."</p>
	Contraceptives are not used	<p><i>"If you are <u>not on contraceptives</u>, you will get pregnant. They must take care to stay up to date with their contraceptives."</i></p> <p>"As jy nie op voorbehoed is nie, dan gaan jy mos nou swanger raak. Hulle moet sorg dat hulle op datum bly met hulle voorbehoed."</p>

Although family planning is available in all clinics on a daily basis, unplanned pregnancies and the lack of family planning is seen by a number of participants as one of the main obstacles in the prevention of FASD (*"...Families are not planned. I think most pregnancies are unplanned."*). This is in accordance with the literature which describes unplanned pregnancies as one of the maternal risk factors for having a child with FASD (Urban et al, 2008:877).

Another problem frequently experienced in clinics is that women, especially women who drink, do not use their contraceptives regularly (*"...If you are not on contraceptives, you will get pregnant. They must take care to stay up to date with their contraceptives."*). Literature, such as May et al (2007:749), include birth control as part of an intervention for women with a high risk of having a child with FAS and also describe birth control and drinking cessation as a dual approach to FAS prevention.

5.4.9.2 Shortage of resources

A shortage of resources was mentioned by various participants as an obstacle in the delivery of FASD prevention services. The responses regarding this obstacle are summarized in table 5.13.

Table 5.13 Obstacles in the delivery of prevention services

THEMES: OBSTACLES IN THE DELIVERY OF FAS PREVENTION SERVICES		
SUB-THEMES	CATEGORY	NARRATIVES
Shortage of resources	Insufficient funding	<p><i>"If you <u>don't have sufficient funding</u>, you can't continue with it."</i></p> <p>"So as jy nie voldoende fondse het nie, dan kan jy nie daarmee aangaan nie."</p> <p><i>"For me it is an obstacle that there <u>isn't sufficient funding</u> in order to do what should be done."</i></p> <p>"Dit is vir my een struikelblok dat daar nie genoegsame finansies is om dit te doen wat gedoen behoort te word nie."</p>
	Human resources	<p><i>" I think our health services are so <u>overwhelmed</u> at this stage. There are these patient numbers..."</i></p> <p>"Ek dink ons gesondheidsdienste is in hierdie stadium so oorweldig. Daar is hierdie pasiëntgetalle..."</p> <p><i>"Manpower. There is <u>not enough members of staff</u> and high case loads definitely play a role in not doing things the way you would like to do it."</i></p> <p>"Mannekrag. Die personeel is maar min en hoë gevalleladings wat definitief 'n rol speel dat mens nie kan doen soos jy dit graag sou wou doen nie."</p> <p><i>"<u>Hands to do the job.</u>"</i></p> <p>"Hande om die werk te doen."</p>

The following two forms of resources were discussed:

5.4.9.2.1 *Funding*

Funding is seen by participants as one of the most important obstacles in the prevention of FASD (“...*For me it is an obstacle that there isn’t sufficient funding in order to do what should be done.*”). Especially the services of NGO’s, who are dependent on outside funding, are handicapped by a lack of funding (“...*If you don’t have sufficient funding, you can’t continue with it.*”). This correlates with literature, such as May and Hymbauch (1989:516) who describe a lack of funding as a factor which can influence the outcomes of programs, since it may lead to discontinuance or downsizing of projects. May (1986:190) refers to a lack of funding as a major problem common to many projects. Parry (2005a:22), however, suggests that the social burden of alcohol misuse can be reduced by increasing excise taxes on alcohol.

5.4.9.2.2 *Human resources*

The personnel in clinics and social workers expressly felt overwhelmed by the magnitude of the needs they have to tend to (“... *I think our health services are at this stage so overwhelmed. There are these patient numbers...*”). Clinic personnel have to prioritize in order to get the most urgent work done. A lack of personnel is experienced as an obstacle in both clinics and welfare organizations (“...*Manpower. There is not enough members of staff and high case loads definitely play a role in not doing things the way you would like to do it.*”).

In the literature, May (1986:190) confirms a need for diversified staff and treatments in a FAS prevention program for Indians. Marais (2006) is in accordance with this view and confirms a need for primary health care staff to become involved in routine alcohol abuse screening for pregnant women, but also state that it is not realistic given their workload.

Despite these staff realities Marais (2006) describes fetal alcohol syndrome as a significant health problem in South Africa.

5.4.9.3 A lack of training and training material

A lack of training both for professional people and volunteers working in the community was a recurrent theme. Some participants felt that their own knowledge base is insufficient (“...*I don't think we have enough knowledge to render a good service.*”). Others said they needed training in order to deliver a better service (“...*The obstacle that I currently have is that I don't have the necessary training to present such programs.*”). Responses regarding this theme are summarized in table 5.14.

Table 5.14 Obstacles in the delivery of prevention services

THEMES: OBSTACLES IN THE DELIVERY OF FAS PREVENTION SERVICES		
SUB-THEMES	CATEGORY	NARRATIVES
A lack of training	Not enough knowledge	<p><i>“I don't think we have <u>enough knowledge</u> to render a good service.”</i></p> <p><i>“Ek dink nie ons het genoeg kennis om 'n goeie diens te lewer nie.”</i></p>
	A lack of training	<p><i>“The obstacle that I currently have is that I don't have the necessary <u>training</u> to present such programs.”</i></p> <p><i>“Die struikelblok wat ek nou tans het is, ek het nie die nodige opleiding om sulke programme aan te bied nie.”</i></p> <p><i>“We do the best that we can do with the information we have. We will have to be <u>trained</u> in order to give precise information. We can't just work with general knowledge and pamphlets.”</i></p> <p><i>“Ons doen maar die beste wat ons kan met die inligting wat ons het. Hulle sal vir ons moet opleiding gee sodat 'n mens vir die mense kan presies... Ons kan nie op algemene kennis en pamfletjies ...”</i></p>
	A lack of training material	<p><i>“Pamphlets to distribute in the community.”</i></p> <p><i>“Inligtingstukke wat 'n mens in die gemeenskap kan versprei.”</i></p> <p><i>“...There must be videos available for us”</i></p> <p><i>“Hulle moet vir ons videos beskikbaar stel.”</i></p>

These findings, as presented above, are in line with the literature. May (1986:190) names counselors with little or no professional training, as well as a need for diversified staff, as

common problems in many alcoholism projects. May (1995:580) also states that intensive professional education may promote secondary prevention efforts and that it increases the likelihood that risky drinking practices can be detected in an early stage.

Training material was also mentioned as a need. This included pamphlets to distribute in the community ("*...pamphlets to distribute in the community*") and training videos ("*...There must be videos available for us*"). This need and the use of such material are verified in the literature. May (1995:1569) describes public education by means of printed and electronic media as one of the most basic techniques in primary prevention. Stratton et al (1996:116) confirm this view and state that pamphlets and posters serve to educate the public. May and Hymbauch (1989:510) developed pamphlets, posters, fact sheets and a slide set as core elements of FAS education and training in specific communities.

5.4.9.4 Community factors

In the experience of the participants, certain factors in the community influenced women in their decision-making about drinking during pregnancy. These factors are summarized below in table 5.15.

Table 5.15 Obstacles in the delivery of prevention services

THEMES: OBSTACLES IN THE DELIVERY OF FAS PREVENTION SERVICES		
SUB-THEMES	CATEGORY	NARRATIVES
Community factors	Culture of alcohol abuse and weekend drinking	<p><i>"The absolute culture of alcohol or weekend drinking – surely drug use too, but especially weekend drinking."</i></p> <p>"Die absolute kultuur van alkohol of naweekdrinkery. Seker maar dwelmgebruik ook, maar veral naweekdrinkery."</p>
	Difficulty coping with problematic social conditions	<p><i>"I don't think that women are coping in their circumstances when there is poverty and many social problems."</i></p> <p>"Ek dink nie vrouens in 'n opset waar daar baie armoede is en maatskaplike probleme is, cope nie."</p>
	Communities don't speak out when pregnant women are drinking	<p><i>"...If you start talking to communities they can tell you how many pregnant mothers drink, but nobody does anything about it. If our communities only would make their voices heard more often."</i></p> <p>"As 'n mens begin praat met gemeenskappe dan kan hulle vir jou opnoem hoeveel ma's wat swanger is, drink, maar niemand doen iets daaromtrent nie. So as ons gemeenskappe net meer hulle stem laat hoor."</p>
	A lack of motivation	<p><i>"The people are demotivated. Their boyfriends are not very involved with them; the families don't do much to help them or to prevent that woman from drinking."</i></p> <p>"Die mense is gedemotiveer. Hulle boyfriends is nie baie betrokke by hulle nie, die families doen nie baie om te help of om te keer dat daai vrou drink nie."</p> <p><i>"How to motivate them to take part. It also is a challenge to get them to participate. They are so entrenched in their drinking culture."</i></p> <p>"Hoe om hulle te motiveer om deel te neem. Dit is ook nogal 'n challenge om hulle te kry om deel te neem. Hulle is so gevestig in hulle drinkerskultuur."</p>
	Social problems in the homes	<p><i>"Children are motivated for instance not to become involved in alcohol abuse but they go back home and I think the problem very often lies at home where parents often don't exercise enough supervision over learners."</i></p> <p>"Kinders is gemotiveer om byvoorbeeld nie betrokke te raak in drankmisbruik nie, maar hulle gaan terug huis toe en ek dink dis baiekeer daar wat die probleem is – waar ouers baiekeer nie voldoende toesig lewer oor leerders nie."</p>

As illustrated above, the culture of alcohol abuse, especially over weekends, influences people's actions ("*...The absolute culture of alcohol or weekend drinking – surely drug*

use too, but especially weekend drinking.”) Parry (2000:216-217) confirms this problem and states that about a third of the adult population in South Africa drink at risky levels over weekends. May (1986:189) links susceptibility to alcohol misuse to both cultural and social integration patterns.

The participants also recognized the difficult social conditions of many women and that some women find it hard to cope with their circumstances (*“...I don’t think that women are coping in their circumstances when there is poverty and many social problems.”*). This is in accordance with the findings of Sunde and Kleinbooi (1999:58) who describe the social and living conditions of women on farms as extremely harsh. Falletish (2008:85) refers to women on farms as one of the most vulnerable groups in society. The participants had the same opinion about the circumstances of the women and recognized their inability to cope with these circumstances.

Participants also recognized the failure of the community to speak out when pregnant women are drinking, as problematic. Even though members of the community may know that pregnant women are drinking and have the insight to know that it is unacceptable, they don’t take action. Communities stay silent instead of becoming involved or addressing drinking behaviour in pregnant women (*“...If you start talking to communities they can tell you how many pregnant mothers drink, but nobody does anything about it. If our communities only would make their voices heard more often.”*)

May (1995:1573) confirms the role of society and states that, in universal prevention, it is important to emphasize changes in the larger environment. Norms and practices should therefore be changed to make heavy drinking behaviour unacceptable. Parry (2005a:24) confirms this view and advocates community mobilization against alcohol misuse as part of an alcohol-intervention strategy in South Africa.

Some participants mentioned the lack of motivation in women (“...*The people are demotivated.*”). Also, pregnant women often don’t have enough support to stop drinking (“...*Their boyfriends are not very involved with them; the families don’t do much to help them or to prevent that woman from drinking.*”). May (1995:1586), confirms this situation, but sees the involvement of the family and especially the involvement of the woman’s partner, as a crucial part of the service rendered to these women.

This lack of support and involvement at home not only affects the reactions and drinking behaviour of women, but also the children who are exposed to these conditions and behaviour. Prevention programs often target children and motivate them not to become involved in alcohol abuse and also to abstain from drinking when pregnant. Mabelebele (2008) is of the opinion that these programs are crucial due to the high rates of teenage pregnancies and that school children should be central targets in any efforts to bring an end to alcohol abuse by pregnant teenage mothers. However, conditions at home very often teach them the opposite (“...*Children are motivated for instance not to become involved in alcohol abuse but they go back home and I think the problem very often lies at home where parents often don’t exercise enough supervision over learners.*”).

This finding is confirmed by the work of Brady and Rendall-Mkosi (2005:42), who state that social, cultural and physical environments may be the most important influences on how, how much and with whom people drink. According to these authors it is also the social environment that determines how people behave when they drink and how other people deal with them.

5.4.9.5 Individual responsibility

Table 5.16 Obstacles in the delivery of prevention services

THEMES: OBSTACLES IN THE DELIVERY OF FAS PREVENTION SERVICES		
SUB-THEMES	CATEGORY	NARRATIVES
Individual responsibility	People know, but they don't care	<p><i>"I think the people know, but I think they don't care. If I drink I must decide to stop drinking. It is me who is pregnant. This is the responsibility the individual must accept."</i></p> <p><i>"Ek dink die mense weet, maar ek dink dis 'n no care. As ek drink, moet ek besluit ek gaan ophou met drink. Dis ek wat die babatjie verwag. Dis die verantwoordelikheid wat die individu self moet neem."</i></p>

Some participants were of the opinion that women were informed about the dangers of alcohol during pregnancy but have never taken responsibility for their own actions and decisions (*"...I think the people know, but I think they don't care. If I drink I must decide to stop drinking. It is me who is pregnant. This is the responsibility the individual must accept."*).

This view correlates with the literature. According to Falletisch (2008:51-52) dependency and powerlessness have become institutionalized in the lives of labourers on wine farms. This also seems to be true in the lives of many people living in the towns. May (1996:192) describes a fatalistic acceptance of problems among Indians but is of the opinion that it can be replaced by knowledge and a positive orientation which will in turn lessen some of their problems.

5.4.9.6 Low levels of education

Literature (Parry et al, 2005:93; London, 2003:6; Waldman, 1994:18) refers to the low educational levels of women who abuse alcohol and confirms the role of education in

drinking habits. Participants were in agreement with the literature about this and were of the opinion that low educational levels are a considerable obstacle in the prevention of FASD (“...*Our people’s level of literacy may be a considerable obstacle.*”). This obstacle is summarized below in table 5.17.

Table 5.17 Obstacles in the delivery of prevention services

THEMES: OBSTACLES IN THE DELIVERY OF FAS PREVENTION SERVICES		
SUB-THEMES	CATEGORY	NARRATIVES
Low levels of education	Low levels of literacy	<p><i>“Our people’s level of literacy may be a considerable obstacle.”</i></p> <p><i>”Ons mense se vlak van geletterdheid is miskien ‘n beduidende struikelblok.”</i></p> <p><i>“Under those with low levels of literacy, those people who don’t have insight or who have FAS themselves, the message will be hard to get across.”</i></p> <p><i>“Onder die laag geletterdheidsvlakke, daardie mense wat nie insig het nie of wat self aan fetale alkoholsindroom ly, by hulle gaan die boodskap seker maar moeilik uitkom.”</i></p>

The findings above express the need for the development of materials, including posters, pamphlets and slides, for people with different levels of education as described by May (1989:510). Stratton et al (1996:116) mention different basic techniques such as television advertisements, public service announcements, laws and regulations reinforcing norms and practices to depict heavy drinking and to educate the public about the unacceptability of heavy drinking and alcohol abuse.

5.4.9.7 A lack of co-ordination between organizations

Participants described a lack of co-ordination between organizations in the field of FAS prevention (“...*There is not co-ordination between all the organizations that exist.*”). A need for better co-operation was also expressed (“...*Your different government*

departments must join hands with these types of programs or you'll only reach a small proportion of the people.”). Some participants saw this lack of co-ordination and co-operation as due to an uncertainty about each others' roles (“*Maybe we should look at what everybody's roles are and if everybody is fulfilling their roles.*”). Table 5.18 provides a summary of this subtheme.

Table 5.18 Obstacles in the delivery of prevention services

THEMES: OBSTACLES IN THE DELIVERY OF FAS PREVENTION SERVICES		
SUB-THEMES	CATEGORY	NARRATIVES
A lack of co-ordination and co-operation between organizations	Lack of co-ordination	<p><i>“There is not co-ordination between all the organizations that exist.”</i></p> <p>“Daar is nie koördinasie tussen al die organisasies wat daar bestaan nie.”</p>
	Uncertainty about roles	<p><i>“Maybe we should look at what everybody's roles are and if everybody is fulfilling their roles.”</i></p> <p>“Mens moet dalk weer gaan kyk na wat is almal se rolle en voer almal hulle rolle uit.”</p>
	Lack of co-operation	<p><i>“Your different government departments must join hands with these types of programs or you'll only reach a small proportion of the people.”</i></p> <p>“Jou verskillende staats-departemente en goed moet hande vat met hierdie tipe van programme anderste gaan jy ook maar net weer 'n klein gedeeltetjie bereik.”</p>

These findings, as presented above, correlate with literature. Co-ordination of activities and relationships between various non-government organizations and government departments, is, according to May (1995:1560), generally insufficient. Although this state of affairs is not unique in the Western Cape or South Africa, this area with its extremely high prevalence of FASD, cannot afford a lack of co-ordination and co-operation between role players to harm the prevention efforts.

Family and peer groups have the most profound influence on permanent behaviour changes. Prevention programs must therefore influence them in a variety of contexts and ways. In order to achieve this goal, all organizations and institutions need to work together and act as agents of change May (1995:1559). Parry (2005a:24) supports this when he calls for a national alcohol intervention strategy that brings together a co-ordinated response which includes civil society.

5.4.9.8 Research results are not studied and implemented

It was the opinion of several participants that existing research and research results about the prevalence and consequences of FASD is not put to good use (*"...I also think that the authorities such as the Department of Health and the Department of Agriculture don't use the statistics and research results that are available to address the situation."*) Some participants expressed doubt if national and provincial government departments studied these research results or if they ever really took notice of the magnitude of the problem (*"I don't think – I don't know if the right people have ever really made a study of the results."*).

Table 5.19 presents a summary of the data collected that supported this subtheme.

Table 5.19 Obstacles in the delivery of prevention services

THEMES: OBSTACLES IN THE DELIVERY OF FAS PREVENTION SERVICES		
SUB-THEMES	CATEGORY	NARRATIVES
Research results are not studied and implemented	Research results are not used	<i>"I also think that the authorities such as the Department of Health and the Department of Agriculture don't use the statistics and research results that are available to address the situation."</i> "Ek dink ook dat die owerhede soos die Departement Gesondheid en Departement Landbou gebruik nie die statistieke en navorsingsresultate wat beskikbaar is om die situasie aan te spreek nie.
	Research results are not studied	<i>"I don't think – I don't know if the right people have ever really made a study of the results."</i> "Ek dink nie – ek weet nie of die regte mense al regtig, ek wil amper sê 'n studie gemaak het van die resultate nie."

The findings presented above are supported by literature. Parry (2005a:24) expresses a need to establish an adequate information base to support the implementation of a national alcohol strategy.

5.4.10 Other comments and suggestions

Participants were given the opportunity to make other comments or suggestions for which the questionnaire (Annexures E and F) did not make provision. These comments or suggestions can also be grouped together in the following subthemes:

5.4.10.1 *A lack of facilities for children with FASD*

One of the realities of FASD is that these affected children have great difficulty coping with the schooling system where they are forced to follow the mainstream curriculum. Participants saw this situation as a major problem which they are faced with on a daily basis. Not only is there a lack of recognition of the extent of the problem, but there is no long term planning for the educational needs of children with FASD. The participants had a pressing need to express this lack of facilities as an obstacle in service delivery in the field of FASD.

- *These children have a need for special treatment and care and education and mainstream education does not really make provision for them. And this is a big, big, big need.*

Die kinders het 'n behoefte aan spesiale behandeling en sorg en onderrig en daar word nie rêrig vir hulle voorsiening gemaak in die hoofstroom onderwysstelsel nie. En dis 'n groot, groot, groot behoefte.

There is ample proof and support in literature (Kalberg and Buckley, 2006:59; Kalberg et al, 2006:2038; Kodituwakku et al, 2006:1551) that children with FAS have special educational needs. Miller (2005) is of the opinion that many students with FASD qualify for special education services because of their diverse abilities and challenges. In several

countries, however, these children are accommodated in mainstream education (Kalberg & Buckley, 2006:58). The goal of educational intervention, according to these authors, is to provide academic and functional support for the child in order to develop into an independent adult. Some participants, however, doubted if education structures and management have ever taken notice of the nature and extend of FASD and the challenges it presents to the curriculum. One of the participants said:

- *I am unsure if the broad education structure and management have ever really taken notice of the nature of fetal alcohol syndrome and the challenges it has for our curriculum.*

Ek is onseker of die breë onderwysstruktuur en bestuur al regtig kennis geneem het van die aard van fetale alkoholsindroom en die uitdagings wat dit vir ons kurrikulum stel.

Not only were participants of the opinion that educational structures did not take notice of these children, but they also saw a need for long term planning for the educational needs of children with FASD. Participants expressed their concerns in the following ways:

- *There isn't really long term planning in education for these kids, or sustainable planning for them.*

Daar is nie rêrige langtermynbeplanning in onderwys vir hierdie outjies nie, of 'n volhoubare beplanning vir hulle nie.

- *I would say the educational road for these kids is still very haphazard.*

Die onderwyspad vir hierdie outjies, sou ek sê, is nog baie lukraak.

The importance of educational planning and addressing children's specific needs are supported by literature. Kalberg and Buckley (2006:61) state that the ultimate goal of educational planning for children with FASD is to work towards a respectable quality of life for that individual. According to these authors the school and family must work together to develop, assess and define a child's school program. The planning of these interventions should, according to Kalberg and Buckley (2006:65), not be static, but a dynamic, ongoing process. Sadly, this is not yet the case in South African schools.

5.4.10.2 A need for drastic measures

Some participants were of the opinion that more drastic measures are needed to address the prevention of FAS. Although this conviction is in some cases the result of frustration with women who get the necessary information at clinics but deliberately choose to continue their lifestyle, there is merit in this argument. One participant said:

- *More drastic efforts must be made to address fetal alcohol syndrome, the prevention of fetal alcohol syndrome.*

Meer drastiese pogings aangewend word om fetale alkoholsindroom, die voorkoming van fetale alkoholsindroom aan te spreek.

May (1995:1553) confirms this view and states that prevention programs must be aggressive and broadly focused in order to deal with the different conditions associated with fetal alcohol syndrome. Another participant expressed the need for more aggressive interventions as follow:

- *Somewhere people must intervene. Somewhere there must be laws that forbid these women because they just get away with it.*

lewers moet mense ingryp. lewers moet daar wette (wees) wat die vroumense verbied want hulle kom net weg daarmee.

Stratton et al (1996:114) support this view by stating that interventions must become more specific and intensive when risk is defined by individual characteristics. These authors (1996:130) also state that the strength of the intervention should be proportional to the risk.

5.4.10.2 FAS is a vicious cycle

The participants showed an awareness of the fact that children with FAS become adults with FAS who may have permanent disabilities that requires full-time supervision. One participant said:

- *People forget that these children become adults and then it is a much bigger common problem because a mother does not live forever to take care of these childlike people.*
Mense vergeet dat die kinders grootmense raak en dan is dit mos nou 'n baie groter gemeenskaplike probleem want 'n ma leef mos nou nie aldag om na hierdie kinderlike mense om te sien nie.

This is in accordance with literature which states that FAS is a permanent condition which affects every aspect of a person's life as well as that of their families (Mabelebele, 2008).

As expressed in the following narrative, participants also recognized the fact that a person with FAS has a higher risk for alcohol and drug abuse and eventually may give birth to more children with FAS:

- *These children will very likely drink when they are adults and will have children who are the same... So somewhere we must try to break the cycle.*
Omdat daai kinders ook as grootmense heel waarskynlik gaan drink en dan weer gaan kinders hê wat dieselfde... So iewerste moet 'n mens probeer om die siklus te breek.

The abovementioned views are supported by May et al (2008:739), who identified strong normative and cultural support for abstinence or light drinking as a protective factor for alcohol abuse. The Alberta Partnership on Fetal Alcohol Syndrome (1999) is in agreement with this view and states that the incidence of FAS is higher in populations with a high proportion of women who drink. Parry (2005a:20-21) confirms that South Africa is a country with an extremely high level of alcohol consumption but that there is no single strategy used to reduce or eliminate the burden of alcohol abuse to individuals or society.

5.5 CONCLUSION

The twenty two participants in this study were all professional people who were either involved in the prevention of FASD or working with people who have been affected by alcohol during pregnancy. The participants each described the different FASD prevention services their organizations rendered on all levels of prevention. From these descriptions it was clear that there was a wide variety of universal prevention services available in the

study area. These services were, however, mostly focused on women and children and few services included men or highlighted the role of the father during pregnancy. Also, it was clear that only a small proportion of the participants were actively involved in universal prevention services. A sizeable proportion only engaged in the universal prevention services of other organizations but never initiated any prevention services themselves. Almost half of the participants never attempted or engaged in any universal prevention services.

Selective prevention services were mostly offered by health care workers and social workers with pregnant mothers on their caseloads. The content of these short conversations, however, were often alcohol abuse and not planned short interventions to prevent fetal alcohol syndrome. This was especially true in the case of social workers who considered this the task of the local clinics. Although several participants indicated that they were involved in indicated prevention services, these services mostly consisted of general information given in counseling to women who were already on the case loads of social workers. Some health workers also considered follow-up conversations with pregnant women as indicated prevention services. There were, however, no planned or specific interventions with high risk pregnant women in the study area. Given the extremely high prevalence of FASD in the Western Cape, this is a serious shortcoming in prevention services.

The focus of FASD prevention programs included several areas. The physical consequences of maternal drinking which included growth deficiency and the facial features associated with FAS, were well known to the participants and received a lot of attention in prevention efforts. Other physical consequences such as possible physical malformations or heart defects were not as commonly known and also not often included in these programs. Participants were also aware of mental consequences such as mental

retardation, loss of intelligence and learning difficulties and put a lot of emphasis on these factors in their prevention programs. Less well known and therefore included less, were mental consequences such as problems with motor co-ordination and abstract thinking.

There was a marked difference between the focus on social and behaviour problems in affected children and the physical and mental consequences for affected children. When participants included social and behaviour problems in their prevention programs, the focus was on inattentiveness. Almost half of the participants never included factors such as poor judgment, hyperactivity or lying when information was given about the effects of alcohol on the unborn child. In contrast with this, the majority of participants focused on the social and behavioural problems in adults in their prevention programs. This indicates that they are well aware of the lasting effects of alcohol exposure into adulthood.

Single participants focused their services on the development of life skills in affected children, developmental screening of babies and examinations of newborn babies to determine if an earlier diagnosis can be made in order to do interventions with the children at an earlier stage.

Participants had a high level of awareness of most maternal risk factors for having a child with FASD. Especially factors such as unintended pregnancies, social and psychological risk factors and drinking habits were well known. Very few of these risk factors were, however, addressed successfully. Physical risk factors were mostly addressed in clinics by offering different methods of birth control and providing nutritional supplements for pregnant women. Addressing psychological and social risk factors were problematic for most participants. A need for more psychologists and more extensive social services exists. Participants claimed that referrals to social services were followed up poorly. Although drinking habits are addressed in prevention services, the message of abstinence

during pregnancy was often lost on women who did not seem to grasp the consequences of drinking during pregnancy.

An evaluation of the systems involved in prevention services indicated that most prevention services were offered on the micro-level and very few on the macro-level. Services on the different levels did not overlap often enough to provide the necessary reinforcement of the prevention message.

Collaboration and co-operation between different role players proved to be a major cause of concern. Although there were good general relationships between organizations, hardly any formal collaboration agreements existed between them. Organizations attended each others' programs and considered each other in their planning, but co-ordination was rarely found. This affected referrals and the degree to which organizations trusted each other to deliver the services they were supposed to.

Several obstacles in the delivery of prevention services were pointed out. Ignorance of individuals, the community and in some cases government structures caused immense frustration for those who are trying to deliver a service without the necessary resources. The needs of children with FASD were recognized on the community level but as yet receive very little attention from government. A lack of facilities for children with special education needs was identified.

Participants strongly emphasized the need for drastic measures and more aggressive prevention programs to break the vicious cycle of FAS in these high risk communities.

This study has investigated the existing efforts to prevent FASD and the advantages of an ecological approach for FASD prevention. Chapter six takes into consideration the findings of this study and makes recommendations for addressing the prevention of FASD, using an ecological approach.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

The Western Cape has one of the highest recorded rates of FAS in the world. A study by May et al (2007:1) found a prevalence rate of 68.0 – 89.2 cases per 1000 births in a high risk community in the Western Cape. Preliminary figures from current research in Bonnievale, Robertson, Ashton and Montagu, which formed the study community for this study, were even more shocking and indicated a prevalence rate of 94 to 129 per 1000 children in grade 1 (May, 2011).

Despite these findings, FAS and the dangers of drinking alcohol during pregnancy are not unknown concepts to the general population in the study area. A community survey conducted during the same period of time as the above-mentioned study by May (2011), indicated that 86.5% of women and 66.7% of men in the study area have previously heard of FAS. The same survey indicated that 90.1% of women and 81.1% of men in the study area were of the opinion that no amount of alcohol is safe during pregnancy (Parry, 2011).

Literature (May et al, 2007:269; Astley, 2004:348; McKinstry, 2004:3; Ott, Quinn & Thompson, 2004: 3-4; Alberta Partnership on Fetal Alcohol Syndrome, 1999; May, 1995:1553) recommends the use of a comprehensive approach with overlapping levels of reinforcement for the prevention of FAS. Prevention efforts on all levels, as well as in the different systems of the environment, are recommended. This study investigated the current FAS prevention services in the Bonnievale, Robertson, Ashton and Montagu-area (BRAM) with the aim and objectives as described below.

6.2 AIM AND OBJECTIVES

This study was undertaken with one aim and four objectives. The aim of the study was to create an understanding of the existing nature of FAS prevention from an ecological perspective.

The first objective was to discuss the ecological perspective, its concepts, principles and systems. Discussing the benefits of the ecological perspective for the prevention of FASD as well as for the different levels of intervention, formed part of this objective. Chapter two dealt with this objective and discussed the need for a theoretical framework and the systems theory as the fore-runner to the ecological perspective. The ecological perspective, its levels and systems and the interaction between these levels were explored. This chapter also discussed critique on the ecological perspective and how the ecological perspective can be applied to the prevention of FASD. It also covered the levels of prevention (universal-, selective- and indicated prevention) as well as the views from the ISDM on the integration of services.

The second objective was to describe the phenomenon of FAS and the devastating physical, mental and behavioural consequences of drinking during pregnancy. Chapter three covered this objective by starting with the history of FASD. The FASD spectrum as well as maternal risk factors for FASD was covered in this chapter.

The third objective aimed to create an understanding of the needs, realities and socio-economic circumstances of women in the rural parts of the Western Cape. This was addressed in chapter four which also covered the importance of agriculture in South Africa, the history of farm labour in South Africa and the current social structure on farms. The realities women have to deal with, such as conditions of employment, waged poverty, housing, family violence and health were discussed. Alcohol abuse as a reality on farms was discussed extensively.

The fourth objective was to investigate how different role players contribute to the prevention of FASD. In chapter five this objective was explored through a situational analysis of FASD prevention in the study area. In this chapter research findings regarding FASD prevention services on the different levels of prevention, the aspects of FASD addressed in FASD prevention, the risk factors for FASD and the levels of FASD prevention in the study area are discussed. Co-ordination and collaboration between organizations, referrals and obstacles in the delivery of FASD prevention services are also described and discussed. Resulting from these findings in chapter five and the literature study, the researcher has come to certain conclusions and will make recommendations in this regard.

This study has given a situational analysis of the prevention of FASD. The following insights were gained from the study.

6.3 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions are based on the findings of the empirical investigation. The conclusions and recommendations are presented in a similar format as that in chapter five, the empirical study, hence following the sequence of the questionnaire.

6.3.1 Identifying details

All participants in the study were professional people working in the fields of social work, health, education, safety and security, community development or FAS prevention. The majority of the participants were employed in senior positions. Except for two participants who completed high school only, all participants had a tertiary education. Participants were knowledgeable about the services their organizations rendered, as well as the existing needs and obstacles regarding FASD prevention.

6.3.2 Core business

The core business of the majority of organizations or government departments in which the participants were involved, were health- or welfare services. The core business of the other organizations included education, law enforcement, rural development, care of terminally ill patients and full time care of children in a children's home. The core business of two participants was FAS awareness and prevention.

From these findings it can be concluded that FAS prevention is one of the functions of most participants who were involved in the study, but not a core function.

It is recommended with regard to the core business of non-government organizations and government departments that:

- Non-government organizations and government departments involved in the prevention of FASD define their specific aims for, and roles in, the prevention of FASD.
- Non-government organizations and government departments plan their prevention services according to the core tasks of their organizations or departments.
- Non-government organizations as well as government departments utilize their specific knowledge base and skills to address the aspects of FASD that they are best qualified to address.

6.3.3 Prevention services

The majority of the participants indicated that their organizations or departments were involved in the prevention of FASD. Prevention services were available on all three levels of prevention as discussed below:

6.3.3.1 *Universal prevention services*

More than half of the participants indicated that their organizations were involved in universal prevention services. However, this involvement in some cases consisted only of engaging in or supporting, the prevention services offered by other organizations. Universal prevention services ranged from general awareness programs to programs more specifically aimed at women or children. Few FASD prevention services were aimed at men, indicating a clear gap in service delivery. In their descriptions of universal prevention services for FASD, participants tended to include all the services their organizations rendered on this level. Furthermore, it was clear that FASD was often addressed as a sub-theme of alcohol abuse or other general programs to enhance social functioning.

In conclusion, the results of the study indicate a lack of formal universal FASD prevention programs that are actively pursued in the community, as well as FASD prevention services aimed at men.

With regard to universal prevention services it is recommended that:

- Non-government organizations and government departments involved in universal prevention services, plan specific universal prevention efforts aimed at the prevention of FASD and not only address FASD prevention as a part of their general alcohol abuse prevention programs;
- Prevention efforts aimed at men are included in their universal prevention programs;
- Non-government organizations and government departments plan their universal prevention services in co-ordination with that of other non-government organizations and government departments in order to provide overlapping levels of reinforcement and to ensure that universal prevention programs are available on the micro-, meso- and macro-levels of the community.

6.3.3.2 *Selective prevention services*

More than half of the participants in this study indicated that their non-government organizations or government departments were mainly involved in selective prevention services such as short interventions with pregnant women. Most of these interventions were undertaken by health workers such as nursing sisters, counselors and the sonographer in antenatal clinics. At the time of the study, some of the clinics relied heavily on a research study operating in the area to handle these short interventions. In addition, the content of the short conversations, which is part of these short interventions in clinics, often did not focus on fetal alcohol syndrome, but on alcohol abuse in general.

Social work participants were only involved in selective prevention services as part of their general social interventions with women who were on their case loads, but not as a planned fetal alcohol prevention service. These participants considered short interventions with pregnant women who drink as the responsibility of the clinics.

From these findings it can be concluded that health workers are responsible for most of the selective prevention services offered in the area. However, the content of the prevention messages are not focused on the prevention of fetal alcohol syndrome but are in some cases general information about alcohol abuse.

With regards to selective prevention services for FASD, it is recommended that:

- All women are exposed to a short intervention consisting of a brief screening for alcohol abuse, a short information session about the dangers of alcohol during pregnancy and their own risk for having a child with FASD. This intervention should take place during their first booking at the antenatal clinic;
- The content of the short interventions are structured and contain information about the consequences of drinking during pregnancy, risk factors for FASD and the possibility of referral for more services if needed;

- The information gained during the short intervention is documented in order to allow follow-up interventions or referral should drinking prove to be a problem that needs more attention;
- A protocol for follow-up and referral of pregnant women who drink is developed for - and implemented in - clinics.

6.3.3.3 Indicated prevention services

Although the majority of the participants indicated that they were involved in prevention services on this level, their descriptions of these services were similar to that of the short conversations in selective intervention. None of the participants offered therapeutic counseling focused on drinking cessation or reduction of drinking during pregnancy. Social work participants indicated that there was no specific treatment program for pregnant women who abuse alcohol. Participants in health services indicated that they refer pregnant women who drink to social workers but experience a lack of support from welfare services. This led to a general lack of trust in the ability of social workers to follow up on referrals and to deliver the necessary services.

The conclusion drawn from this is that there is a void in the delivery of indicated prevention services for FASD. The result of this gap in prevention services is that women with the highest risk for having a child with FASD are not referred for counseling or treatment.

Regarding indicated prevention services for FASD, the following is recommended:

- That the roles and responsibilities of health workers and social workers regarding women who drink during pregnancy, are clearly defined and agreed upon by the Department of Health, the Department of Social Development and non-government organizations;
- That a proper system of referral is set in place by the above-mentioned departments and non-government organizations to ensure that high risk pregnant women receive

continuous support and services in the form of case management or referral to facilities for alcohol treatment;

- That a specific treatment program is followed by the Departments of Health and Social Development, as well as non-government organizations, for women who abuse alcohol during pregnancy.

6.3.4 Aspects of FAS addressed by prevention programs

The results of this study indicate that participants focused on all four categories of the consequences of FASD that were listed, namely physical consequences, mental consequences, social and behavioural consequences for children. They also focused on social and behavioural consequences for adults who were prenatally exposed to alcohol. The consequences of prenatal drinking which were most often addressed in prevention activities, were growth deficiency of the child, the facial features associated with FAS, mental retardation, loss of intelligence, learning difficulties, inattentiveness and the possibility of involvement in illegal activities as adults. Other aspects which were addressed were the developmental needs of and life skills for the child with FAS.

The conclusion drawn from these findings are that participants were well informed about most consequences of prenatal drinking and addressed the basic consequences thereof, being growth retardation, mental retardation or the loss of intelligence as well as certain behavioural consequences. Participants were also aware of, and addressed the fact that, these consequences continue into adulthood. General health consequences for the exposed child and social and behavior problems, however, need to be addressed more often.

The following recommendations regarding the aspects of FASD addressed by prevention programs are made:

- That prevention programs contain factual information about all categories of consequences for the exposed child;
- That awareness programs include information about the spectrum of effects caused by prenatal drinking and not only focuses on the consequences of prenatal drinking found on the severe end of the FASD spectrum.

6.3.5 Risk factors for FASD

The results of this study indicate a fluctuating awareness of the maternal risk factors for having a child with FASD. The findings are discussed in the following categories of risk factors:

6.3.5.1 *Physical risk factors*

The conclusion drawn from the results of this study is that there is a high awareness of unintended pregnancies, numerous pregnancies and the birth order of the child as risk factors for FASD. Maternal age, the possibility of genetic factors and especially the smaller physique of women were less recognizable physical risk factors. These risk factors are addressed mainly in clinics by encouraging the use of contraceptives and adding nutritional supplements to the diets of pregnant women.

With regards to the physical risk factors for FASD, it is recommended that:

- Women are informed about their risk for having a child with FASD if contraceptives are not used regularly and correctly, in family planning clinics;
- Health personnel in antenatal clinics provide pregnant women with information about their elevated risk for having a child with FASD due to higher gravidity, parity and maternal age.

6.3.5.2 *Psychological risk factors*

From the findings of this study it can be concluded that psychological factors as maternal risk factors for having a child with FASD, are widely recognized by all disciplines which were involved in this study. Psychological risk factors were addressed by the least number of participants. A lack of resources to address these risk factors and the need for a full-time psychologist in the area - due to the fact that the position has been vacant for a considerable period of time - was identified.

It is recommended that:

- The Department of Health investigates the need for a full-time psychologist in the BRAM-area, the reasons for this position being vacant for a considerable period of time and take appropriate action to rectify the situation.

6.3.5.3 *Social risk factors*

The results of this study indicate a high awareness of social risk factors for FASD. Although all participants regarded poor nutrition as a maternal risk factor, they did not link the small physique of some women to poor nutrition. Poor nutrition as a risk factor is addressed by several feeding schemes, but other social risk factors receive very little attention. Several participants expressed a lack of trust in social workers to follow up on references and to deliver services.

The conclusion drawn from these findings is that social risk factors are often left unattended, due to the lack of trust in the ability of social workers to deliver services or to follow up on references. It can also be concluded that social workers are regarded as the only agents for social change in the community. All responsibility for social change is, therefore, channelled to social workers.

The recommendations made concerning social risk factors for FASD are that:

- Community organizations and structures such as churches and businesses are made aware of their collective social responsibility to address and act upon social needs and ills in the community;
- The Department of Health and the Department of Social Development agree upon criteria for referrals and the process of referrals;
- That the Department of Social Development evaluates the need to introduce the prevention of FASD as a special program in itself and not as a section of the current substance abuse program.

6.3.5.4 Drinking habits

Participants in this study were all agreed on the fact that any amount of drinking during any trimester in pregnancy, places the unborn baby at risk for having FASD. In clinics this risk factor is addressed by means of short conversations with pregnant women during almost every visit to the clinic. Social work participants addressed this risk factor with services that ranged from general awareness programs about alcohol abuse to providing role models in children's homes.

From these findings it can be concluded that different disciplines address this risk factor according to their own knowledge base, strengths and fields of service, thus contributing to a comprehensive prevention effort.

It is recommended that:

- Each discipline (health, social work, education, safety and security, community development and specialist organizations for FASD prevention) use its own knowledge base and strengths for the development and implementation of planned and structured alcohol abuse and FASD prevention programs;

- The above-mentioned alcohol abuse and FASD prevention programs are implemented in such a way that they complement and supplement each other in order to provide the necessary overlapping levels of reinforcement.

6.3.6 Systems involved in prevention services

This study investigated existing FASD prevention services on the micro-, meso- and macro-levels. According to the findings, a variety of services were rendered on micro-level to individuals with high risk drinking behavior, groups of workers on farms and in therapeutic groups for women. Services on meso-level consisted mostly of prevention services in clinics and schools. These prevention services in schools were often delivered in collaboration with *FAS Facts* who were responsible for presenting the program. Although some participants indicated that they deliver FASD prevention services in businesses or other places of employment, these services, without exception, referred to services rendered on farms to groups of farm workers. FASD prevention services on macro-level were far less than on the micro- and meso-levels.

From the findings of this study it can be concluded that, although services are delivered on the micro-, meso- and macro-levels, the majority of these services are on micro-level. Systems on the meso-level are not utilized often enough for FASD prevention services. In addition, services on macro-level are in many instances confined to collaboration agreements between government departments. It can, therefore, be concluded that the lack of services on the meso- and macro-levels limits the utilization of a comprehensive approach with overlapping levels of reinforcement, on all the levels of prevention.

With regards to FASD prevention services on the different levels of the community, it is recommended that:

- Organizations, such as the Rural Development Forum and NGO's, as well as community structures on meso-level, are actively involved in FASD prevention services;
- Non-government organizations and government departments concerned with FASD prevention or affected by the consequences of FASD, play an active role in influencing policies and legislation regarding FASD.

6.3.7 Collaboration and co-ordination with other role players

It was the finding of this study that 91% of participants collaborated with other non-government organizations and government departments. This collaboration usually consisted of support for each others' programs or joining in with these programs. The conclusion drawn from this finding is that, although there are positive indications of movement towards collaboration, a need for active collaboration between non-government organizations and government departments - with different bases of knowledge and different perspectives - exist in order to carry out comprehensive, community-wide FASD prevention programs.

In contrast with the findings of this study concerning collaboration between non-government organizations and government departments, the minority of participants were of the opinion that there was co-ordination of services between these role-players. The existing co-ordination was described as loose, informal and short-lived. As in the case of collaboration, the study indicated a general willingness between non-government organizations and government departments to co-operate on a limited level.

The conclusion drawn from this finding is that there is a need for formal co-ordination of FASD prevention services in order to create a comprehensive approach which combines a variety of disciplines and all the levels of prevention.

With regard to collaboration and co-operation between role players, it is recommended that:

- Co-ordinating committees are established in every area by the Department of Health, in collaboration with the Department of Social Development, to ensure co-ordination of services and early identification of gaps in service delivery;
- Positive movements towards collaboration between non-government organizations and government departments are formalized into co-ordination agreements, with clear indications of responsibilities, referral systems and collaboration between the parties.

6.3.8 Referral

The general consensus of participants in this study was that no formal referral system exists between role players in the field of FASD prevention. The study found that almost 60% of participants never referred individuals or groups that needed services to other role players. The study indicates that a lack of support from welfare services, a shortage of psychologists and of resources in general, influenced referrals. It can therefore be concluded that there is a need for a formal system of referrals as well as a need for dependable resources to increase the efficacy of interventions.

It is, therefore, recommended that:

- A formal system of referrals is negotiated and agreed upon by the regional level of the concerned government departments and non-government organizations;
- This formal system of referrals is implemented between all the major role players such as the Departments of Health, Education, Social Services, Safety and Security and NGO's delivering social work- or FASD prevention services.

6.3.9 Obstacles in service delivery

This study found that the following factors are experienced as obstacles in the delivery of FASD prevention services:

6.3.9.1 *Unplanned families*

The conclusion reached from the input of participants in this study is that a lack of family planning exists and that the fact that contraceptives are not used regularly, are obstacles in the prevention of FASD. Recommendations in this regard are discussed under physical risk factors in par. 6.3.5.1.

6.3.9.2 *Shortage of resources*

Participants in this study described a shortage of resources consisting of insufficient funding, human resources as well as training and training material. Insufficient funding handicaps the services of NGO's in particular, whereas a shortage of human resources results in personnel feeling overwhelmed by their workload. This leads to the conclusion that insufficient funding and a lack of human resources limits not only the variety of FASD prevention services, but also the effectiveness of these services.

In the light of the above-mentioned, it is recommended that:

- Government departments re-evaluate the need for specific funding for FASD prevention programs, taking into account the financial burden an individual with FAS imposes on the health, welfare and educational systems;
- Non-governmental organizations involved in the prevention of FASD work closely together with possible funders and explore new avenues for funding.

6.3.9.3 *A lack of training*

This study identified a lack of knowledge and a need for training among professional people as well as volunteers working in the community. A need for training material to enhance the effectiveness of prevention efforts was also identified.

Regarding training, the following recommendations are made:

- That health workers in clinics, including nursing sisters in charge of antenatal and family planning clinics, as well as counselors, social workers and community development workers, receive training about FASD, the consequences of prenatal drinking and maternal risk factors for FASD.

6.3.9.4 *Community factors*

Participants in this study identified the culture of alcohol abuse and weekend drinking, the difficulties women have in coping with problematic social conditions, communities that do not speak out against pregnant women who drink, a lack of motivation in pregnant women and social problems in the homes as community factors that are obstacles in the prevention of FASD. The conclusion reached from this information is that there are behaviours, attitudes and social conditions in the study community that hinders - or negatively impacts on - FASD prevention services.

In this regard it is recommended that:

- FASD prevention programs address the responsibility of the wider community to become involved in the prevention of FASD by adopting a zero tolerance policy regarding alcohol abuse during pregnancy;
- FASD prevention programs include men and older members of the community thus enabling them to act as support systems for pregnant women;

- Specific prevention efforts by government departments and non-government organizations are directed at alcohol outlets and shebeens to take responsibility by refusing to sell alcohol to pregnant women.

6.3.9.5 Individual responsibility

The conclusion drawn from the findings of this study is that, although women are aware of the dangers of alcohol abuse during pregnancy, they do not take responsibility for their lifestyle, which includes the use or abuse of alcohol. It is, therefore, recommended that:

- Individuals should be exposed to FASD awareness programs repeatedly throughout their lifetime, on all the levels of the community, in order to reinforce the prevention message.

6.3.9.6 Low levels of education

Low levels of literacy have, according to the findings of this study, had an influence on FASD prevention. Not only is it difficult to find suitable training material for women with low levels of literacy, but their lack of insight limits their understanding of prevention messages. It is, therefore, the conclusion of this study that low levels of literacy has a negative effect on FASD prevention and that it is necessary to adapt prevention messages to fit the level of literacy of the individual or group targeted with these messages.

In this regard it is recommended that:

- Training material is developed by government departments and non-government organizations to fit different levels of literacy;
- A variety of training materials such as DVD's, posters, pamphlets and effective slogans be used by all role-players in the field of FASD prevention. These role players would include those concerned with children and families affected by prenatal drinking,

educators and community organizations such as churches, employers and the governing bodies of schools.

6.3.9.7 A lack of co-ordination between organizations

A lack of co-ordination, uncertainty about the roles of different role-players and a lack of co-operation was identified by the participants as obstacles in the delivery of FASD prevention services. This supports the findings in par. 6.3.7 and leads to the conclusion that there is not only a need for co-ordination, but that a lack of co-ordination between non-government organizations and government departments involved in FASD prevention services, is an obstacle in the delivery of effective FASD prevention services. Recommendations in this regard are discussed in par. 6.3.7.

6.3.9.8 Research results are not studied and implemented

It is the finding of this study that participants doubted that the findings of research is studied and put to good use by the different departments and government structures concerned with FASD. The conclusion drawn from this result is that workers in the field of FASD prevention encounter realities and needs concerning FASD which are not addressed by current legislation and policies. Furthermore, the conclusion can also be reached that these prevention workers experience a need for policy makers to be made aware of the realities in the field and to adapt current policies and legislation in order to address these realities. This conclusion supports the conclusion and recommendations regarding services on the macro-level as discussed in par. 6.3.6.

6.3.10 Other comments and suggestions

In this study, participants made comments and suggestions concerning FASD services that can be divided into three subthemes. These subthemes were:

- A lack of facilities for children with FASD;

- A need for drastic measures to address FASD;
- A need to understand that FAS is a vicious cycle.

The conclusions made from these comments and suggestions were that the needs of children with FASD are not addressed in mainstream education. A need for special treatment and education exists. It was, however, also concluded that the education system is unaware of, or ignores, the special needs of children with FASD and the challenges which these children present to mainstream education. The third conclusion drawn from this study is that there is a lack of long term planning for the educational needs of children with FASD.

As far as facilities and special education for children with FASD is concerned, it is recommended that:

- Educators advocate the educational needs and realities of children with FASD more strongly in order to influence educational policies and planning.

As far as drastic measures to address FASD is concerned, the conclusion was made that more such measures and interventions are needed to address the prevention of FASD. It is, therefore, recommended that:

- Role players accept the challenge to advocate for the interventions needed to endorse FASD prevention measures.

Regarding FAS as a vicious cycle, it is concluded that service providers are aware of the lifelong effects FAS has on the individual and the community and that communities feel these effects. It is also concluded that service providers realize the need to break the vicious cycle of FAS through successful interventions and prevention efforts. In this regard it is recommended that:

- Service providers plan combined strategies and interventions as part of a comprehensive approach to the prevention of FASD.

6.4 FURTHER RESEARCH

In the light of the results of the investigation concerning FASD prevention services, it is recommended that further research focuses on the development of a successful, comprehensive program for the prevention of FASD. The goal of such a program should not only be to enhance FASD awareness, but also to endorse a lifestyle that limits the possibility of exposing the fetus to alcohol.

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Annexure A

UNIVERSITY OF STELLENBOSCH

CONSENT TO PARTICIPATE IN RESEARCH

Research project: The prevention of fetal alcohol syndrome: An ecological approach

Statement by participant

I, the undersigned,
(ID.....) of.....
.....

(organization or department), confirm that:

1. I was invited to take part in the abovementioned research project conducted by the Department of Social Work of the University of Stellenbosch as part of a Master's thesis.
2. It has been explained to me that:
 - 2.1 The purpose of the study is to collect information regarding existing FAS prevention programs and the collaboration between different organizations in delivering prevention services for FAS.
 - 2.2 The information will be collected by means of a questionnaire by the researcher during an interview conducted with me.
 - 2.3 The interview will be recorded.
 - 2.4 Twenty two professional people will participate in the research and only one interview will be necessary.
3. The collected information will be treated as confidential. The findings will however be presented in a thesis.
4. I can obtain information from the researcher after the project has been concluded.
5. I have been informed of my right to refuse participation or to terminate my participation in the study at any time during the interview.
6. The above-mentioned information was explained to me in English. I confirm that I am fluent in the language and understand the contents of this document.
7. I confirm that I had an opportunity to ask questions and that the questions were answered to my satisfaction.
8. I hereby agree that I willingly agree to take part in this study.

Signed in on2010.

.....
Signature

Annexure B

UNIVERSITEIT VAN STELLENBOSCH

TOESTEMMING OM DEEL TE NEEM AAN NAVORSING

Navorsingsprojek: Die voorkoming van fetale alkohol sindroom: 'n Ekologiese benadering

Verklaring deur deelnemer

Ek, die ondergetekende,

(ID.....) van.....

.....(organisasie of department), bevestig dat:

1. Ek genooi is om deel te neem aan bogenoemde navorsingsprojek uitgevoer deur die Departement Maatskaplike Werk van die Universiteit van Stellenbosch as deel van 'n tesis vir 'n Meestersgraad.
2. Dit is aan my verduidelik dat:
 - 2.1 Die doel van die studie is om inligting in te samel rakende bestaande FAS voorkomingsprogramme en die samewerking tussen verskillende organisasies in die lewering van voorkomingsdienste vir FAS.
 - 2.2 Die inligting sal ingesamel word met behulp van 'n vraelys wat die navorser tydens 'n onderhoud met my sal voltooi.
 - 2.3 Die onderhoud sal op band opgeneem word.
 - 2.4 Twintig professionele persone sal deelneem aan die navorsing en slegs een onderhoud elk sal nodig wees.
3. Die ingesamelde inligting sal konfidensieël hanteer word. Die bevindinge sal egter in 'n tesis aangebied word.
4. Ek kan inligting van die navorser bekom nadat die projek voltooi is.
5. Ek is ingelig omtrent my reg om deelname te weier of om my deelname aan die studie enige tyd gedurende die onderhoud te termineer.
6. Die bogenoemde inligting is in Afrikaans aan my verduidelik. Ek bevestig dat ek Afrikaans magtig is dat ek die inhoud van hierdie dokument verstaan.
7. Ek bevestig dat ek die geleentheid gebied is om vrae te vra en dat die vrae tot my bevrediging beantwoord is.
8. Ek erken hiermee dat ek bereid is om aan die studie deel te neem.

Geteken te op2011.

.....

Handtekening

Annexure C

STATEMENT BY RESEARCHER

I,, declare that I have:

1. Explained the information contained in this document to
2. Offered him/her the opportunity to ask questions or to explain any part of the the information given.
3. Conducted this discussion in English.

Signed by.....on2011.

.....
Signature

Annexure D

VERKLARING DEUR NAVORSER

Ek, verklaar dat ek:

1. Die inhoud vervat in hierdie dokument aan
verduidelik het;
2. Aan hom/haar die geleentheid gegee het om vrae te vra of enige gedeelte van die
inligting wat verskaf is, te verduidelik;
3. Die gesprek in Afrikaans gevoer het.

Geteken deur op2011.

.....
Handtekening

Annexure E

UNIVERSITY OF STELLENBOSCH

DEPARTMENT OF SOCIAL WORK

SEMI-STRUCTURED QUESTIONNAIRE

The prevention of Fetal Alcohol Syndrome Disorders: An ecological perspective

All information recorded in the questionnaire will be regarded as confidential. Individual views or respondents names will not be made known. Please answer the following questions honestly.

1. IDENTIFYING DETAILS

1.1 What is your profession?

Social Worker	
Community development worker	
Nurse	
Other health professional	
Law enforcement officer	
Educator	
Supervisor	
Program Coordinator	
Other	

1.2 Position in organization:

.....

1.3 Qualifications:

University degree	
College or technicon diploma	
High school qualification	

2. CORE BUSINESS

2.1 What is the core business of your organization or government department

Health services	
Welfare	
Education	
FAS awareness and prevention	
Crime prevention	
Rural development	
Care of terminally ill patients	
Other	

If other, please explain:

.....

.....

3. PREVENTION SERVICES

3.1 Is your organization or department involved in prevention of FAS?

Yes	
No	

3.2 If yes, what kind of **primary FAS prevention services** does your organization or department offer?

General awareness programs in the community i.e. marches, newspaper articles	
Awareness programs for children	
Awareness programs for teenagers	
Awareness programs for women	
Awareness programs for men	

3.2.1 Please describe the primary FAS prevention services in which your organization or department is involved:

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3.3 If yes, what kind of **secondary FAS prevention services** does your organization or department offer?

Brief interventions with pregnant women	
Training of health care professionals	
Information sessions for volunteers involved in the community	

3.3.1 Please describe the secondary FAS prevention services in which your organization or department is involved:

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3.4 If yes, what kind of **secondary FAS prevention services** does your organization or department offer?

Individual counseling for pregnant women	
Referral of drinking pregnant women for counseling or treatment	

3.4.1 Please describe the tertiary FAS prevention services in which your organization or department is involved:

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4 ASPECTS OF FAS ADDRESSED BY PREVENTION PROGRAMS

4.1 When delivering a service to prevent FAS, on which of the following aspects of FAS do you focus?

4.1.1 Physical consequences for the child prenatally exposed to alcohol

Growth deficiency of the child	
The facial features associated with FAS in the affected child	
The possibility of malformations of limbs, kidneys or the brain	
Heart defects in affected children	
The general health consequences of FAS for the child prenatally exposed to alcohol	

4.1.2 Mental consequences for the child prenatally exposed to alcohol

Structural damage to the brain	
Mental retardation	
Loss of intelligence	
Learning difficulties	
Problems with memory	
Problems with attention	
Problems with abstract thinking	
Problems with motor co-ordination	

4.1.3 Social and behaviour problems in affected children

Problems with social adjustment	
Poor judgment	
Inability to understand the motives of others	
Exploitation of children	
Hyperactivity	
Inattentiveness	
Lying	

4.1.4 Social and behaviour problems in adults prenatally affected by alcohol

Involvement in illegal activities	
Misuse of alcohol and drugs	

4.1.5 Which other aspects of FAS do you address in your programs?
Please explain.

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5. RISK FACTORS FOR FASD

5.1 In your opinion, what are the maternal risk factors for having a child with FAS?

5.1.1 Physical factors

Unintended pregnancies	
Numerous pregnancies	
Birth order of the child	
Older mothers	
Possible genetic factors	
Small, light women	

5.1.2 Psychological factors

Depression	
Low self-esteem	
Poor life goals	

5.1.3 Social factors

Low socio-economic status	
Low income	
Poor nutrition	
Lack of education	
Employed as farm worker	
Low religiosity	
Unmarried and cohabitating with male partners	
Heavy drinking male partners	
Drinking friends	
Alcohol abuse in the extended family	

5.1.4 Drinking habits

Initiating drinking at an early age	
Drinking throughout pregnancy	
Any amount of drinking during pregnancy	
Drinking in the first trimester	
Binge-drinking	
Heavy drinking in pregnancy	

5.2 How does your organization or department address these risk factors? Please elaborate how the following risk factors are addressed:

5.2.1 Physical factors

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5.2.2 Psychological factors

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5.2.3 Social factors

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5.2.4 Drinking habits

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6. SYSTEMS INVOLVED IN PREVENTION SERVICES

6.1 Where has your organization or department offered FAS prevention services or campaigns during the past year?

6.1.1 On Micro-level

In case management with individuals with high risk drinking behaviour	
To the family or partners of high risk drinking women	
To church groups	
To groups of workers on farms	
In therapeutic groups for women with high risk drinking habits	
In therapeutic groups for pregnant teenagers	

6.1.2 On meso-level

In schools	
In day care or after school centers	
In clinics	
In hospitals	
In businesses or other places of employment	

6.1.3 On macro-level

By entering in collaboration agreements with other role players	
By influencing community resources and their policies regarding FAS prevention services	
Through community development campaigns	
By influencing government policy regarding FAS prevention	
Through mass-media campaigns	

7. COLLABORATION

7.1 Do you collaborate with any other organizations, departments or individuals in delivering FAS prevention services?

Yes	
No	

7.2 Please describe with whom and how you collaborate.

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8. REFERRAL

8.1 Which system of referral exists between role players in the field of FAS?

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8.2 How often have you referred a service user or service provider group to any other role player for a specific FAS prevention service during the past year?

Never	
Weekly	
Monthly	
Quarterly	
Annually	

8.3 To which organization or service provider have you referred service users and for what service?

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9. OBSTACLES IN SERVICE DELIVERY

9.1 What do you see as obstacles in the delivery of FAS prevention services?

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10. ANY OTHER REMARKS?

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Thank you very much for your participation and co-operation

Annexure F**UNIVERSITEIT VAN STELLENBOSCH****DEPARTEMENT MAATSKAPLIKE WERK****SEMI-GESTRUKTUREERDE VRAELYS****Die voorkoming van Fetale Alkohol****Sindroom: 'n Ekologiese perspektief**

Alle inligting verkry deur die vraelys sal as konfidensieël beskou word. Individuele menings of respondente se name sal nie bekend gemaak word nie. Beantwoord asseblief die volgende vrae eerlik.

1. IDENTIFISERENDE BESONDERHEDE

1.1 Wat is u beroep of profesie?

Maatskaplike werker	
Gemeenskapsontwikkelings beampte	
Verpleegster	
Ander gesondheidsberoep	
Wetstoepassingsbeampte	
Opvoeder	
Supervisor	
Program koördineerder	
Ander (verduidelik asseblief)	

1.2 Watter posisie beklee u in u organisasie.....

.....

1.3 Wat is u kwalifikasie?

Universiteitsgraad	
Kollege of tegnikon diploma	
Hoërskoolopleiding	

2 KERNBEDRYF

2.1 Wat is die kernbedryf van u organisasie of staatsdepartement?

Gesondheidsdienste	
Welsynsdienste	
Opvoeding	
FAS bewusmaking en voorkoming	
Misdaadvoorkoming	
Landelike ontwikkeling	
Versoring van terminaal siek pasiënte	
Ander	

2.2 Indien ander, verduidelik asseblief:

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3. VOORKOMINGSDIENSTE

3.1 Is u organisasie of department betrokke by die voorkoming van FAS?

Ja	
Nee	

3.2 Indien ja, kies uit die onderstaande lys al die **primêre voorkomingsdienste** wat u organisasie of department bied :

Algemene bewusmakingsprogramme in die gemeenskap bv. optogte, koerant artikels	
Bewusmakingsprogramme vir kinders	
Bewusmakingsprogramme vir tieners	
Bewusmakingsprogramme vir vroue	
Bewusmakingsprogramme vir mans	

3.2.1 Beskryf die aard van elkeen van die primêre FAS voorkomingsdienste wat u van die lys hierbo gekies het en waarby u organisasie of departement betrokke is:

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3.3 Indien u organisasie of departement betrokke is by die voorkoming van FAS, kies uit die onderstaande lys al die **sekondêre voorkomingsdienste** wat u organisasie of departement bied:

Kort intervensies met swanger vroue	
Die opleiding van gesondheids-werkers	
Inligtingsessies vir vrywilligers wat in die gemeenskap betrokke is	

3.3.1 Beskryf die aard van die sekondêre FAS voorkomingsdienste wat u uit die bostaande lys geselekteer het en waarby u organisasie of departement betrokke is:

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3.4 Indien u organisasie of departement betrokke is by die voorkoming van FAS, kies uit die onderstaande lys al die **tersiêre voorkomingsdienste** wat u organisasie of departement bied en dui aan hoe gereeld dit beskikbaar is:

Individuele berading aan swanger vroue	
Verwysing van swanger vroue wat drink vir berading of behandeling	

3.4.1 Beskryf die aard van die tersiêre FAS voorkomingsdienste wat u uit die bostaande lys geselekteer het en waarby u organisasie of departement betrokke is:

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4. ASPEKTE VAN FAS WAT AANGESPREEK WORD DEUR VOORKOMINGSPROGRAMME

4.1 Wanneer 'n diens gelewer word om FAS te voorkom, op watter van die volgende aspekte van FAS fokus u?

4.1.1 Fisiese gevolge vir die kind wat voorgeboortelik aan alkohol blootgestel is:

Groeivertraging by die kind	
Die gesigskenmerke wat met FAS geassosieer word by die geaffekteerde kind	
Die moontlikheid van afwykings in die ledemate, niere en/of brein	
Hartdefekte in die geaffekteerde kind	
Die algemene gesondheidsgevolge van FAS vir die kind wat voorgeboortelik aan alkohol blootgestel is	

4.1.2 Verstandelike gevolge vir die kind wat voorgeboortelik aan alkohol blootgestel is:

Strukturele skade aan die brein	
Verstandelike vertraging	
Verlies van intelligensie	
Leerprobleme	
Probleme met geheue	
Probleme met aandagspan	
Probleme met abstrakte denke	
Probleme met motoriese koördinasie	

4.1.3 Sosiale en gedragsprobleme in geaffekteerde kinders:

Probleme met sosiale aanpassing	
Swak oordeelsvermoë	
Onvermoë om die motiewe van ander te verstaan	
Uitbuiting deur ander kinders of volwassenes	
Hiperaktiwiteit	
Onoplettendheid	
Leuens	

4.1.4 Sosiale en gedragsprobleme in volwassenes wat voorgeboortelik aan alkohol blootgestel is:

Betrokkenheid by onwettige aktiwiteite	
Misbruik van alkohol en dwelms	

5.1.4 Drinkgewoontes

Begin drink op vroeë ouderdom	
Drink dwarsdeur swangerskap	
Enige hoeveelheid drankgebruik tydens swangerskap	
Drankgebruik in die eerste trimester	
Fuif-drinkery	
Swaar drankgebruik tydens swangerskap	

5.2 Hoe spreek u organisasie of department hierdie risikofaktore aan? Beskryf asseblief die volgende risiko-faktore aangespreek word.

5.2.1 Fisiese faktore

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5.2.2 Sielkundige faktore

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5.2.3 Maatskaplike faktore

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5.2.4 Drinkgewoontes

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6. VLAKKE EN AARD VAN VOORKOMINGSDIENSTE

6.1 Waar het u organisasie of departement FAS voorkomingsdienste of veldtogte aangebied gedurende die afgelope jaar?

6.1.1 Op mikro-vlak

In gevallewerk met individue met hoë risiko drinkgewoontes	
Aan die gesin of saamleefmaats van vroue met hoë risiko drinkgewoontes	
Aan kerkgroepe	
Aan groepe werkers op plase	
In terapeutiese groepe vir vroue met hoë risiko drinkgewoontes	
In terapeutiese groepe vir swanger tieners	

6.1.2 Op meso-vlak

In skole	
In dagsorg- of naskoolsentrums	
In klinieke	
In hospitale	
In besighede of ander werksplekke	

6.1.3 Op makro-vlak

Deur samewerkingsooreenkomste met ander rolspelers te sluit	
Deur gemeenskapsbronne en hul beleid aangaande FAS voorkomingsdienste te beïnvloed	
Deur gemeenskapsontwikkelingsveldtogte	
Deur staatsbeleid aangaande FAS voorkoming te beïnvloed	
Deur massa-media veldtogte	

7. SAMEWERKING EN KOÖRDINERING MET ANDER ROLSPELERS

7.1 Werk u saam met ander organisasies, departemente of individue om FAS voorkomingsdienste te lewer?

Ja	
Nee	

7.2 Beskryf asseblief saam met wie en hoe u saamwerk.

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8. VERWYSING

8.1 Watter sisteem van verwysings bestaan tussen rolspelers in die veld van FAS?

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8.2 Hoe dikwels het u gedurende die afgelope jaar 'n verbruiker van dienste of 'n groep wat dienste lewer na enige ander rolspeler verwys vir 'n spesifieke FAS voorkomingsdiens?

Nooit	
Weekliks	
Maandeliks	
Kwartaalliks	
Jaarliks	

8.3 Na watter organisasie of diensverskaffer het u verbruikers van dienste verwys en vir watter diens?

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9. STRUIKELBLOKKE IN DIENSLEWERING

9.1 Wat sien u as struikelblokke in die lewering van FAS voorkomingsdienste?

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10. ENIGE ANDER OPMERKINGS OF KOMMENTAAR?

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Baie dankie vir u deelname en samewerking