PROBLEM BEHAVIOUR IN PRE-SCHOOL CHILDREN

Healthy Minds Africa aims to raise awareness of child and adolescent mental health problems and promotion among policymakers, health, social service and educational professionals, parents and adolescents. In the upcoming series of Bulletins, we will give information on emotional and behavioural problems in children and adolescents, both generally and more focused on specific problems. Many mental health problems begin in early childhood, including depression, anxiety, ADHD, autism and disruptive behaviour problems (e.g., aggression, opposition and defiance). Some of the first signs of mental health problems are lasting changes in children's behaviour that affect how they function (e.g., changes in mood, energy level, sleep, attitude and appetite). Professionals now have effective diagnostic tools to identify mental disorders in very young children. However, parents still play an important role by often being the first to see the warning signs. It is, therefore, crucial for parents to be informed of early signs of mental health problems so that they can seek help for their children as soon as possible.

In this Bulletin, we describe the signs of mental health problems of younger children, specifically pre-school children. Understanding the signs of these problems at a younger age is important so as to seek help early and prevent later problems. Scientists have found that if pre-schoolers are not taught how to inhibit aggressive behaviour, half of them are likely to still behave aggressively at school entry, which persists. This pattern increases the risk of serious problems at the end of adolescence (age 18), including substance use, risky sexual behaviour, delinquency and poor academic achievement, especially in the presence of family and school-related stress. In the following sections, we describe the signs of problematic behavior in pre-schoolers and the factors related to their development.

What is a problematic behavior?

A behavioural disorder in young children in the pre-school age (hence "pre-schoolers") must include a pattern of symptoms that;

- has been troublesome for some time to the child and/or others,
- occurs in more than one situation,
- is relatively severe, and
- is likely to impede the child's performance in age-appropriate developmental tasks.

Therefore, a behavioral problem is not the sheer presence of problem behaviours but differentiates normal from deviant, taking into account the frequency, intensity, chronicity, constellation, and (social) context.

In children in the pre-school age, it isn't easy to differentiate between behaviours that can be regarded normal for a certain age and those that may indicate psychopathology due to the following reasons.

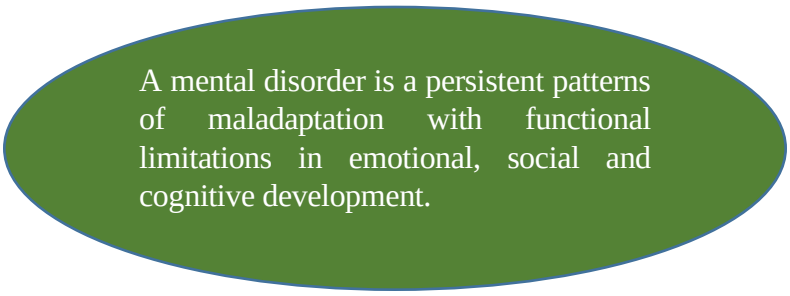
1. Fluctuations in behavior from day to day

Obtaining a consistent picture of behaviour in pre-schoolers can be challenging. Fairly extensive fluctuations in behaviour from day to day may characterise normal functioning. However, currently,

well-validated and standardized procedures are available to obtain reliable reports and documentation of problem behaviour. In the last decade, diagnostic tools have been refined to identify mental disorders in very young children. Some disorders may manifest themselves differently in the early years, in keeping with the child's age and brain development. Depression and anxiety can be detected in childhood, and symptoms of these conditions tend to increase in frequency over the first five years of life.

2. Age-specific behaviors

Many isolated behaviours considered problematic in older children are common in non-referred pre-schoolers and may be part of normal development. Thus, bedwetting, stranger anxiety, or separation distress will not be considered problematic among most 2-year-olds. Defiant or negativistic behaviour, which is a concern among school-aged children, may be regarded quite common among pre-schoolers seeking to establish autonomy during the separation-individuation process. Likewise, given the level of cognitive development of most pre-schoolers, aggressive encounters between 2- and 3-year-olds may more often be interpreted as being rough instead of aggressive. The toddler cannot take the viewpoint of others into account and thus cannot connect certain behaviours (e.g., hitting) with their effect on another person (i.e., inflicting pain). However, suppose these common difficult behaviours have not dissipated by age 5, then they constitute a risk for becoming mental disorders.



Disruptive behaviour problems are another example of mental disorders in children. Depending on the child's age, these can include aggression, opposition and defiance, rule-breaking, stealing and vandalism. With age, children learn socially acceptable behaviours from interactions with their environment. A 'disease' status is observed when a child uses disruptive behaviours significantly more often than his age group over a long period of time.

In an attempt to provide conceptual clarity in the description of young children's potentially problematic behaviours, Susan Campbell (1990) suggested the terms (1) annoying behaviour, (2) problem behaviour, and (3) symptomatic behaviour. Annoying or worrisome behaviour refers to typical or age-appropriate behaviour that may concern some parents. Problem behaviour may indicate an exaggeration in the frequency and/or intensity of typical behaviour to an upsetting degree.

Symptomatic behaviour or symptoms may be utilized to designate a mental health problem.

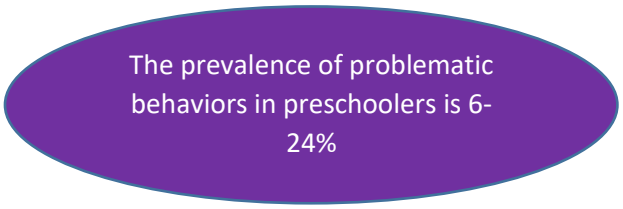
3. The key informant

Various informants such as parents, clinicians, teachers etc., are likely to report different behaviors of a child. Different informants often disagree on the presence and severity of the child's problem behaviours. The information given always depend on the prevailing conditions and the relationship with the child. Each informant may provide valid, though different data. This phenomenon has been observed for both older and younger children using reports of behavioural/emotional problems as well as temperament ratings. Overall, obtaining information from multiple sources like mother, father, and other caretakers increases the validity of the information.

How common are problematic behaviors in pre-school children?

Studies on the prevalence of problem behaviours of 2-year-olds are rare. Three-year-olds have been studied as a separate sample or have been included in a so-called pre-school sample. The reported prevalence of the significant disorder among pre-schoolers based on parental reports ranges from 6% to 50%. This variation in results may not be surprising since prevalence rates were derived from diverse and sometimes unstandardized assessment procedures. Furthermore, several studies used unrepresentative samples. Many studies differed in their criteria for deviance, i.e., simple percentages of reported behaviour, and cut-off points based on either percentile scores or on ratings made by psychiatrists.

The most frequently used approach to study prevalence rates in pre-school children has been to obtain parent reports on a limited set of specific problem behaviours. By employing a cut-off point for the sum of problem scores above which children's behaviour can be considered deviant, it is possible to determine the number of 'disordered' individuals. Studies using this method have reported 6 to 24% prevalence rates in sample ranging from rural areas to inner-city dwellings. These percentages may vary by the composition of the sample studied and even by culture (e.g. North-American, East-Asian, African) or society, as demonstrated for children age 6 and up. Overall, most studies on older age groups report prevalence of about 7% severe problems and an additional 8% mild problems.



Large-scale longitudinal studies of problem behaviours in children and adolescents aged 4 years and older have shown medium to strong stability of parent ratings of behavioural/emotional problems and medium stabilities for teacher ratings. Using a categorical approach stabilities of deviancy have been found on parent reports of 31%-75%, depending on the definitions of deviancy, and stabilities as low

as 9.4% using teacher ratings. A variety of studies using laboratory-based measures, teacher rating scales, and parental reports suggest that pre-school problem behaviour may show marked stability in the same ranges and may be predictive of later behavioural and emotional problems. As a rule of thumb, young pre-school children identified with serious problems of any kind about half are expected to stay in the serious category until the first year of elementary school.

It may be concluded that parent ratings of young pre-school children's problem behaviour show stabilities comparable to those obtained for older children. Information from the studies reviewed suggests that high levels of problem behaviours remain in about 60% of the children. At this age, behavioural problems are somewhat more predictive of later behaviour problems than emotional problems are predictive of later emotional problems. Moreover, the likelihood of persistence is greater when problems are relatively severe *and* when the risk exposure shows continuity.

When should caregivers get worried about problematic behavior in pre-schoolers

1. Difficulty in managing emotions. When children throw a tantrum in a socially inappropriate manner, they cannot control their anger and frustration in an age-appropriate way.
2. Difficulty in school. Pre-schoolers who have problems in school should be given attention as this could be a sign of problematic behavior.
3. Difficulties in maintaining social interactions. Children who cannot have friends and develop healthy relationships with peers should be a cause for concern.
4. Pre-schoolers who do not respond to discipline. A child who displays consistent behavior even after being consistently disciplined may need professional help.
5. Lack of impulse control and are aggressive towards peers and teachers.
6. Pre-schoolers who engage in self-injury by cutting, burning their body etc., should be assisted.
7. Engaging in sexualized behavior.

Where do problematic behavior come from?: Risk factors of problem behaviour in pre-schoolers

Scientists have tried to determine the association of a wide range of several personal and environmental factors with child psychopathological manifestations. These factors may include:

- Age
- Sex
- Race
- socioeconomic status
- urbanization
- marital status
- family composition
- family functioning
- parental psychopathology
- stressful life events.

Related family factors included family constellation, family discord, and family dysfunction. Environmental factors included SES, neighbourhood characteristics, and stressful life events. Related child factors were early behavioural/emotional problems, temperament, and academic problems. There is also consistent evidence that a number of these factors play a role in developing mental health problems in pre-schoolers. Susan Campbell (1990) gives an overview of studies and provides a summary list of relevant factors in adapted form reproduced in Table 1.

Table 1. Factors associated with the development of behaviour problems in pre-schoolers

Child characteristics • Biological risk/vulnerability • Age • Gender • Genes • Irritability/difficultness • Uneven/delayed cognitive development • Deficits in social cognition/skills	*Parenting skills* • Insensitivity/unresponsiveness • Unavailability • Limited/negative affective involvement • Inappropriate developmental expectations • Overly harsh or lax control strategies
Family composition and integration • Low educational level of parents • One-parent family • Marital distress • Parental personality problems • Physical and mental problems • Interparental disagreement over child-rearing • Number of children	*Family environment and social context* • Unemployment/underemployment • Limited financial/material resources • Low social support • Inadequate institutional support • Inadequate child care facilities • Family stresses outside the nuclear family

Note. Table adapted from Campbell, S. (1990). *Behavior problems in pre-school children: Clinical and developmental issues.* New York: The Guilford Press.

Family environment

Family environment factors are related to cognitive and socioemotional outcome in young children. These factors include low family occupational level, low maternal education, minority status, and lack of spousal or family support. This relation seems to be pretty nonspecific, however. The presence of a large number of these factors rather than the presence of each specific factor seems to pose children at risk for development and persistence of behaviour problems.

Child characteristics

There is strong evidence for the role difficult temperament and parental ability to adjust to it play in the development of behaviour problems. Several studies indicate a strong association between parent reports of difficult temperament and concurrent and later reports of behaviour problems. There is some inconclusive evidence on the specificity of the predictive relation between temperament and later behaviour problems.

a) **Difficult temperament**, defined as a frequent and intense expression of negative emotions, seems to be clearly predictive of behavioural problems and somewhat less emotional problems. Scientists suggest that difficult temperament in infancy may lead parents to display either more dysfunctional controlling behaviour or more passivity, which may provoke oppositional or withdrawn behaviours in the child.

b) **Poor adaptability to changing circumstances** would be more predictive of emotional problems. In the relationship temperament and behaviour problems, the quality of the mother-child relationship or interaction may play a mediating role.

c) **Poor cognitive development,** most notably speech and language delay, and perinatal risk. Although prematurity, low birth weight and neonatal insults have been found to be related to behaviour problems, this influence may primarily be through later cognitive development, (lack of) parental and environmental stimulation, and difficult temperament.

d) **Early mother-child relationship,** especially quality of attachment, on problem behaviours up to 4 years later is somewhat inconsistent. Although some studies are affirmative other are not. The reason for this may be that, although an anxious attachment relationship with the mother may pose children at risk for developing behaviour problems, changes in family stress, maternal well-being, and maternal responsiveness may affect this relationship. Therefore, it may be of equal importance to address the effect of concurrent parental attitudes and responsiveness on problem behaviour.

e) **A negative parenting attitude** has been found to related to the stability of pre-schoolers' problem behaviour in several studies. In several of these studies parenting attitudes and behaviours seemed to vary as a function of maternal depression. However, since children immediately experience parenting attitudes and behaviour, this factor may be of more direct influence than maternal depression and even moderate effects of earlier depression.

f) **Stressful life events** can have direct effects on problem behaviour in pre-schoolers and indirect effects, i.e. via parenting.

g) **Genetic and environmental factors.** Scientists suggest that mental disorders occur due to a complex interaction between environmental factors and genetic influence. Genes affect complex behaviour through their influence on the development and function of the essential building blocks of the nervous system. Mental health problems such as Attention Deficit Hyperactivity Disorder (ADHD) appear to be among the most common heritable mental health disorders of childhood. One recent study found that inhibitory control deficit is a cognitive marker of genetic risk shared by parents and offspring. Parents' inhibitory control ability significantly predicted their children's ability.

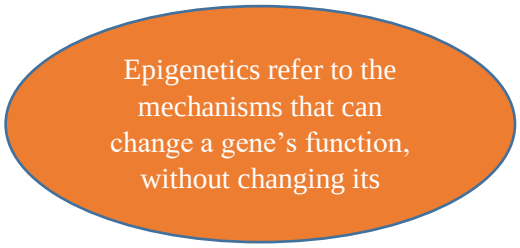
h) **Parent-child interactions in early life** form the foundation for the child's social and emotional development.

i) **Childhood trauma** – abuse, neglect or loss of a parent – is a significant risk factor for developing mood and anxiety disorders. Conversely, supportive, attentive and sensitive adult care plays a salient role in protecting children from potentially harmful effects of stressors.

j) **Maternal prenatal smoking** has been associated with increased risk for ADHD,

oppositional behaviour, conduct disorder and substance abuse outcomes in youth. Fetal Alcohol Spectrum Disorder, a permanent congenital disability caused by maternal consumption of alcohol during pregnancy, is the leading cause of mental retardation in the Western world. Prenatal exposure to alcohol has also been associated with developmental delays and behavioural problems. Psychosocial stress during pregnancy has been linked to increased risk for a number of mental and social abnormalities.

k) **Epigenetic effects** are well known in cancer research and have recently been shown to play an important role in obesity and behavior regulation. Studies with rats have shown that rat pups that were insufficiently licked by their mothers (i.e. neglected) had chemically altered expression of genes, affecting the rats' ability to regulate stress. Subsequent studies suggest similar epigenetic effects occur in humans and that parental care may affect stress regulation in humans.



l) Accumulation of risk

Some studies have found that it is the number of risk factors rather than their nature that is the best determinant of outcome in older and younger children. This means that the more risk factors are present, the worse the outcome is, independent of the particular nature of the factors. Werner and Smith followed a sample of children from birth to adolescence. They identified moderate to severe perinatal stress and a congenital disability at birth as biological risk factors. Risk factors in the caregiving environment were;

- low level of maternal education
- low standard of living
- a low rating of family stability.
- Child characteristics identified as a risk factor were infant activity level at year 1, and IQ. Children with severe early trauma frequently showed no later deficits unless the birth problems were combined with severe environmental circumstances. In this long-term study, the presence of four or more of these predictors at age 2 appeared to be a valid cut-off point for children at risk for serious learning and/or behaviour problems by age 10 or 18.

In the Rochester longitudinal study of children from 4 to 48 months, Sameroff and others identified a set of risk factors that were predominantly found in lower SES groups but affected child outcomes such as intelligence and social-emotional competence in all social classes.

- maternal mental health,
- maternal anxiety
- parental control

- maternal spontaneous interaction
- Education
- Occupation
- minority status
- family support
- stressful life events
- family size.

No single factor was determinant of outcome. The number of risk factors present in the family showed a linear relationship with outcome. Only in families with multiple risk factors was the child's competence endangered.

A study in the Netherlands reported that in a community sample of children ages 2-3 years, the following were the risk factors for mental health problems in pre-schoolers:

- parental education
- socioeconomic position of the family,
- health of the child,
- parental mental health,
- maternal parenting attitude were the strongest correlates of young pre-schoolers' problem behavior.

Forty per cent of the children for whom three or more selected factors of disadvantage were present had a deviant total problem score. Factors were selectively related to syndrome scores. Emotional problems were explicitly associated with low parental education, ill-health of the child, poor physical health of the mother, and poor mental health in both parents. Behavioural problems were related to low educational and socioeconomic status of the family, ill-health of the child, mother being exhausted, irritated, and physical punishing the child, and the presence of stressful life-events. Sleep problems were specifically related to the child's ill health, a number of days in hospital, poor maternal health, and marital conflicts. Somatic problems held a specific relation to maternal physical and mental health. Importantly, these risks add up, independent of their nature. In this study, of children without any risk factor present, only 1.4% had a significant problem. However, these percentages increased to 8.6%, 17.2%, and 40.9% when 1, 2, or 3 factors were present, respectively.

Protective factors at age 2

- good temperament,
- favourable parental attitudes
- low levels of family conflict
- counselling and remedial assistance
- small family size
- a small load of stressful life experiences.

What can be done?

1. Assessment and detection of problematic behavior. There's a need to have professionals who can use culturally appropriate tools to accurately diagnose problematic behavior in children.
2. Early interventions for children with problematic behavior. Given the mounting evidence of the importance of the environment during the prenatal period and the child's early years, it becomes imperative to begin interventions as early as possible. Risk-disorder associations are already well-established earlier in life than many 'prevention' programs begin. The early risk factors for disruptive behaviours suggest that early interventions should start as close as possible to conception and continue supporting the family and the child as long as needed.
3. Investments in families with children living in poverty and early child development programs" should be a priority area for addressing physical and mental health issues. For example, programs like the Care for the Child Development (begins at birth to 2 years), the Nurse-Family Partnership program (starts during pregnancy), and the Perry Preschool Project (during the early years of life) have shown positive effects on child development and prevention of later problems.

Conclusion

Behavioural problems at the young pre-school age are relatively common, with about 10 – 15% affected. The problems are stable for one-third to one-half of the children; they remain for them across several years, bringing considerable burden to the child and its family. Many child and family factors are associated with these problems, with more negative factors – independent of their nature - bringing higher chances of child problems. To detect the problems, parent reports of child behaviour are indispensable, as are parents and family to prevent and/or positively influence the course of these problems. There are a number of effective mental health interventions for families with young children, which we will describe in a later bulletin.