

The Relationship between Parents' and Their Adolescent Children's Mental Health and Mental Illness

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Abstract Depression and anxiety disorders are high-prevalence disorders with a significant impact globally and high social and economic costs. Promotion of mental health and the prevention of depression and anxiety disorders are key health priorities internationally. It is now understood that mental health and mental illness are not two ends of one spectrum but two separate, related spectrums. The relationship between mental illness in parents and the development of mental illness in their children has been well documented however this relationship has not yet been examined from a mental health perspective. A number of mental health protective factors (also known as flourishing factors) have been shown to have a preventative effect on the development of depression and anxiety disorders, however whether parents' mental health protective factors may have any effect on children's depression and anxiety disorder outcomes remains unknown.

Keywords Mental health, Mental illness, Protective factors, Parent, Adolescent

1. Introduction

Mental illness is a significant global health issue with high social and economic costs [11]. The Australian Bureau of Statistics [1] found that up to 45% of the Australian population has experienced a mental illness in their lifetime, including 14.4% experiencing an anxiety disorder and 4.4% experiencing an episode of depression within a 12-month period. The majority of mental illnesses, including depression and anxiety disorders, commence during adolescence and young adulthood [14]. Mental illness and mental health of secondary school aged adolescents (11-18 years) and their parents formed the focus of this review.

2. Background Information

Historically, mental health and mental illness have been considered as the opposite ends of a single spectrum, however in recent years researchers have demonstrated that mental health and mental illness are separate but related concepts [7, 8, 9]. Mental health protective factors, also known as flourishing factors, are indicators of positive mental health. These include: social acceptance and integration (belonging), sense of achievement or mastery, self-awareness and self-acceptance [10].

Keyes et al [10] described in their ten year longitudinal study that a change in mental health level strongly predicted

the incidence of depression and anxiety disorders. The proportion of people with depression or anxiety disorders remained relatively stable at the population level (18.1% in 1995, N=549, 17.5% in 2005, N=301), however at the individual level there were significant changes. Participants who were in the flourishing category in 1995 and declined to the moderate mental health category in 2005 were 3.7 times more likely to have had a mental illness in 2005 than those who remained in the flourishing category. Of the participants who improved to flourishing in 2005 from moderate or languishing in 1995 only 7.1% experienced a mental illness in 2005 (n=236) compared with those who remained in the moderate category (17.1%, N=743) or the languishing category (39.5%, N=112). Overall the likelihood of a participant having a mental illness in 2005 declined by 24% for each increase in mental health category (OR=0.76, $p<0.001$, 95% CI = 0.69-0.84).

3. Method

This literature review included peer-reviewed articles found using the search terms mental health, protective factors, parent, and (child or adolescent) with no restriction for date. A total of 555 articles were found from the PubMed (126 articles), Scopus (230 articles) and PsychInfo (199 articles) databases. Of these articles 151 replicates were found and the remaining 404 articles were considered. The inclusion criteria for this review were: articles that discussed a relationship between the mental health protective factors of parents and/or the depression and anxiety disorders/symptoms of parents, and the mental health protective factors and/or depression and anxiety disorders/symptoms

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of their secondary school aged children (11-18 years). There were ten articles that met these criteria.

4. Results and Discussion

Literature showed a relationship between depression and anxiety disorders or symptoms in parents and an increased likelihood of depressive and anxiety disorders or symptoms in their children, for example:

Avenevoli and Merikangas [2] found in their review of seven studies of families with a parent with psychopathology that children of parents with depression were four times more likely to experience at least one episode of depression than families where neither parent had a mental illness.

Olives *et al* [13] found in their longitudinal study of 454 Spanish children/ adolescents (aged 8-18) and their parents that mental illness in a parent acted as a significant risk factor for their child's development of mental health difficulties. Their model investigated the impact of multiple factors including undesirable life events, home life, family support and availability, parents' mental health, and the child's perception of being loved. The baseline study participants were found through random digital dialling. One key limitation of this study was in the broad definition of "parent" which included the child's mother or father or a tutor depending on the choice of the family. This may have impacted on the study results. The parent report was completed by 100% of parents however only a subsample of children (35% of children over the age of 11) were asked to complete the Strengths and Difficulties Questionnaire (SDQ) child report. At both baseline and follow-up parents' mental health scores impacted on their child's SDQ scores ($\beta = -0.16$, $p < 0.05$).

Data from the German national longitudinal BELLA study [10] of 1643 adolescents aged 11-17 was analysed to determine risk and protective factors for the development of depressive symptoms in adolescents. The study was conducted by phone and used the report of one parent or carer (generally the person who answered the phone) which represents a limitation of the study design. A nine item parent checklist was used and the results were categorised into groups of parents with and without mental illness symptoms using the cut-off of the mean score plus two standard deviations or above to indicate mental illness symptoms. Depressive symptoms of adolescents were assessed using a 20-point self-report scale. Depressive symptoms in adolescents were significantly related to parents' mental illness ($\beta = 0.156$, $p < 0.001$) at baseline. From time one to time two changes in self-efficacy, ($\beta = -0.190$, $p < 0.001$) family climate ($\beta = -0.065$, $p = 0.012$), and social support ($\beta = -0.104$, $p < 0.001$) were all significantly correlated with changes in depressive symptoms in adolescents. Changes in the mental illness symptoms of parents over time did not predict changes in the depressive symptoms of adolescents however this may have been related to the study design. As the authors note, there was little variation in the mental health trajectory of parents

indicating stability in the population of parents who met the criteria for mental health problems in this study. This may have been a result of the choice of measurement tools and the criteria used for a categorisation of mental illness.

Van Loon, Van De Ven, Dan Doesum, Hosman & Witteman's [17] study of children with a parent with a mental illness included cross-sectional and longitudinal components as well as a control group of adolescents who did not have a parent with a mental illness. The intention of this study was to determine the protective factors that impacted on whether adolescents with a parent with a mental illness develop internalising and externalising symptoms. 112 families with a parent with mental illness and 122 families without a parent with a mental illness participated at both stages of the study. At both time one and time two, children of a parent with a mental illness were more likely to have internalising (time 1: $t = 3.18$, $p < 0.01$; time 2: $t = 2.26$, $p < 0.05$) and externalising behaviours (time 1: $t = 2.22$, $p < 0.05$; time 2: $t = 2.32$, $p < 0.05$). In this study no protective factors were found for externalising symptoms however a 'confronting' coping strategy ($\beta = 0.17$, $p < 0.05$), high parental monitoring ($\beta = 0.20$, $p < 0.05$) and greater child self-disclosure ($\beta = 0.20$, $p < 0.05$) predicted lower levels of internalising problems at follow-up. In this study, family cohesion, perceived family support, self-esteem and seeking social supports did not have a protective effect on the internalising and externalising symptoms of the children.

Gere *et al* [5] investigated the protective effect that fathers with few depressive symptoms may have for their children's mental health when the mother reports experiencing depressive symptoms. This Norwegian study included 171 mothers, 135 fathers and 191 children who had been referred to community child mental health clinics and had a primary diagnosis of anxiety disorder. The study found that when the father reported having few depressive symptoms there was minimal correlation between the depressive symptoms of mother and child as reported by the mother ($\beta = 0.04$, no significance level reported), however as the father's depressive symptoms increased to medium ($\beta = 0.34$, no significance level reported) or high ($\beta = 0.63$, no significance level reported), the impact of the depressive symptoms of the mother on the child also increased.

In their 2010 study Ivanova and Israel [6] investigated the moderating effect of family stability (predictable and consistent family routines and activities) on internalising and externalising symptoms in children with a parent with depression. Families with children aged seven to seventeen were recruited through an inner-city child guidance clinic mental health service. Each of the 70 families identified one primary caregiver to participate with their child in the study. Children and parents were interviewed individually. In families with high reported stability there was no significant relationship between parents' depressive symptoms and their children's internalising and externalising symptoms, however in families with low reported stability, depression in the parent was significantly correlated ($\beta = 22.28$, $p < 0.01$) with internalising and externalising symptoms in their

children.

The Preventive Intervention Project in Boston [3] recruited 86 families with at least one parent with an episode of mood disorder in the previous 18 months, and a child between the ages of eight and fifteen years who the parents reported had never been treated for a mood disorder. The families were randomly assigned to clinician-facilitated (six to eleven sessions) or lecture-style (two sessions) psycho-education programs. At the two-year post intervention follow-up parents in the clinician-facilitated groups reported more changes in their behaviour which they attributed to the intervention in the clinician-facilitated group than parents in the lecture group ($\chi^2_1=18.1$, $p<0.001$). Their children also experienced a greater mean change in behaviour and attitude -9.8 ($sd=3.2$) for the clinician-facilitated group compared with 6.3 ($sd=2.6$) for the lecture group. At the two-year post intervention follow-up 18 of the 121 children (14.9%) had been diagnosed with major depression. Because of the absence of a control group it is not possible to determine whether this represents a difference in proportion of children with depression from a non-intervention group.

Three of the papers that met the inclusion criteria had insufficient data to determine any impact on the mental illness and mental health outcomes of adolescents. Powell and Lytham [15] considered the relationship between parents' and children's mental illness in the context of natural disasters. They discussed a number of studies that have demonstrated strong links between parent and child mental illness following a natural disaster and they researched the impact of a three-hour workshop for parents and caregivers covering children's reactions to trauma, stress and how it affects the body, coping mechanisms and building community assets and supports. The workshops were conducted in Christchurch New Zealand between May and October 2011 following a 6.3 magnitude earthquake in February 2011. The results of the study were based on a 10 question survey completed pre- and post- workshop which asked about participants' knowledge of how to identify and reduce stress, and their consideration of community and social supports. Although the authors reported that the participants gave higher ratings for all questions post workshop there was no assessment of the mental health of the children and no follow-up, therefore whether the workshop had any impact on the children's mental health is unable to be determined.

The Dutch COPMI (children of parents with a mental illness) program [16] also had insufficient data about children's mental health and mental illness outcomes to determine the impact of the intervention. The program incorporated educational materials, family meetings, and group sessions for parents and children, along with protocols, internet materials and conferences, and the article described the evidence based techniques used in their program.

Brennan [4] published a personal self-reflective account of the development of a psychoanalytical psychotherapy service to support the parents and carers of at-risk children.

The paper presented the view that weekly psychotherapy for parents had a protective effect for their children's mental health. Although two case studies were included, the paper relied on the reflections of the psychotherapist herself and did not include quantitative data to demonstrate the author's conclusion that the perceived improvement in the mental health of parents had acted as a protective factor for their children.

5. Summary

Of the ten studies which met the criteria of this review three did not provide sufficient data for analysis. The other seven studies all discussed the relationship between depression or anxiety disorders in parents and the increased prevalence of these symptoms or disorders in their children.

Two studies focused on determining the prevalence of depression in adolescent children of a parent with a mental illness. Although the two studies differed in their measurement tools and outcome measures - diagnosis of depression [2] versus "mental health difficulties" [13] - they both found that there was a significantly higher risk for the development of depression in adolescents if a parent has a mental illness.

Four studies investigated protective factors in children which may moderate the risk factor of their parents having a depression or anxiety disorder. There were mixed results between these. Ivanova and Israel [6] found that high reported family stability was protective for the development of externalising and internalising symptoms in adolescents. Klasen et al [10] found that increases in self-efficacy, positive family climate and social supports predicted a decrease in reported depressive symptoms in adolescents with a parent with 'mental health problems'. In contrast however, Val Loon et al [17] found that family climate, self-esteem and social supports did not have a preventative effect on either externalising or internalising symptoms. In the Van Loon et al study high parental monitoring and increased child self-disclosure were protective for internalising symptoms but none of the factors investigated were protective for externalising symptoms. Gere et al [5] found that a lack of mental illness in fathers was protective for the adolescent children of a mother with depressive symptoms.

The final study investigated the impact of a psycho-educational intervention for families. Although this study found long-term changes in behaviour and attitude in adolescents it was unclear from the data whether the incidence of depressive symptoms had changed as a result of the intervention.

Each of the studies considered the mental illness spectrum of the parents and their adolescent children. Four of the studies investigated mental health protective factors of the adolescents however none explicitly examined the parents' mental health protective factors, and none of the studies discussed the mental health spectrum of either parents or adolescents.

6. Conclusions

Having a parent with depression represents a substantial risk factor for the development of depression in adolescents, and this issue has been investigated from a number of perspectives. The literature has shown that mental health protective factors can have a preventative effective on the development of depression and anxiety disorders, and given the established link between mental illness in parents and children, it is expected that parents with higher levels of mental health, and of mental health protective factors, would have children with higher levels of mental health and lower incidence of depression and anxiety disorders. Future research in this area may have a substantial impact on the way that mental health promotion is understood and potential impacts on mental health promotion initiatives internationally.

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