Portal to care: general practitioners' decision-making on child and youth mental health problems and the influence of their (lived) experience

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Chapter 1 - General introduction

Prevalences, causes and consequences of mental health problems in children and youths

Children and adolescents constitute almost a third (2.2 billion) of the world's population (Kieling et al., 2011). They undergo rapid biological, psychological and social transitions during early life. During this period, children and adolescents can experience high levels of emotional distress, which may result in mental health problems (Martinez et al., 2006). Mental health problems are a leading cause of health-related burden, accounting for 15-30% of the disability-adjusted life-years (DALYs) lost during the first three decades of life (Kieling et al., 2011). It is estimated that 10-20% of children and adolescents have some sort of mental health problem (World Health Organization, 2021). Studies show that in the United States, Attention Deficit Hyperactivity Disorder (ADHD), anxiety problems, behaviour problems and depression are the most commonly diagnosed mental health problems in children and adolescents aged 3-17 years old (Bitsko et al., 2022). In Europe, depression and anxiety disorders fall into the top 5 causes of overall disease burden in this population (World Health Organization, 2023).

Mental health problems tend to be underdiagnosed and undertreated for several reasons. These reasons include comorbidity with other non-psychiatric problems and somatization of emotional distress (Martinez et al., 2006), as well as a gap between the increasing demands for mental health services and the limited supply of these services (Olfson et al., 2014; Braddick et al., 2009). If left unexplored, mental health problems can have long-term consequences that impact academic and employment histories, as well as health behaviours in adult life (Roberts et al., 2014). Furthermore, families may be affected emotionally, mentally and sometimes physically (Van Tongerloo et al., 2014). On a community level, mental health problems may lead to high social costs in terms of reduced productivity (Braddick et al., 2009). Also, they impact health systems, social services, education services and youth justice systems in terms of increased financial costs (Suhrcke et al., 2008). In the United States, childhood mental health conditions had a total annual cost of $247 billion (Berdahl et al., 2010). As for the 27 European Union-countries and the United Kingdom, all mental health

problems are estimated to cost more than €600 billion per year (European Commission, 2023).

Importance of GPs' clinical decision-making and factors influencing this process

The prevalence of mental health problems among children and youths in primary care is as high as 30-40% (Haller et al., 2009). As timely treatment is important to avoid aforementioned consequences, general practitioners (GPs) are in an unique position to detect mental health problems in children and youths and refer them to specialist services (Koposov et al., 2017). Despite frequent encounters, GPs experience barriers regarding their clinical decision-making (CDM) for detecting and managing these problems. Presentations are often complex and challenging for GPs to untangle, due to multidimensionality and coexistence with physical complaints (Koning et al., 2019; Roberts et al., 2014). Children and youths with mental health problems tend to wait long before they consult their GP. When they attend, they consult more frequently compared to their healthy peers, but are reluctant to disclose their problems (Verhaak et al., 2015; Kramer and Garralda, 2000). Furthermore, GPs feel often ill-equipped to manage mental health problems in children and youths with respect to their clinical training, communication skills and spendable consultation time, regardless of their age and work experience (Roberts et al., 2014; Koposov et al., 2017). There are also factors which facilitate GPs' CDM; i.e. GPs being parents themselves, knowledge about the neurobiological development occurring in puberty, and closer working relationships with secondary mental health care colleagues (Roberts et al., 2014). GPs report that they refer to mental health services if their patients fail to respond to treatment, have severe affective symptoms or require ongoing psychotherapy (Williams et al., 2005). Such referrals occur quite frequently, with roughly 1 in 5 of young people between 13-18 years who present in general practice being referred to any mental health care, with a substantial

GP as a gatekeeper

Depending on the country (examples include the Netherlands, UK and Australia), GPs function as a *gatekeeper*. Gatekeeping means that patients have to see a GP who decides whether specialist care is necessary. Such referral regulates the access to specialty care, hospital care or diagnostic tests (Onion and Berrington, 1999; Clarke, 2021; Dunnink and Lijs-Spek, 2008).

proportion being referred to (more costly) secondary mental health care (Zwaanswijk et al., 2011). Frequent referrals pose an additional burden on already minimal community-based resources, which in turn lead to a lack of referral options for GPs (Verhaak et al., 2015; Koposov et al., 2017). Despite well documentation of cost-saving benefits of children and youths receiving appropriate, effective and evidence-based care in primary care settings, not much is described in the literature about GPs' everyday CDM or methods to support their CDM (Roberts et al., 2014; Koposov et al., 2017).

Traditionally, CDM has been perceived as a purely rational and cognitive process. However, doctors' experienced emotions can and do affect their CDM (Kozlowski et al., 2017). This can be illustrated by GPs' own smoking status and their attitudes towards giving smoking cessation advice, which influence GPs' engagement in smoking cessation of their patients (Stead et al., 2009). Although research is scarce, there are notions that, through emotion, having (lived) experience regarding mental health problems in doctors influence how they detect and treat these problems (Hankir and Zaman, 2013). A recent study found that two in five GPs have experienced conditions such as depression, anxiety, bipolar disorder, and post-traumatic stress disorder (Rimmer, 2018). It is reported in many studies that these conditions develop before doctors-to-be become GPs, namely in medical education, since some aspects of training may have unintended negative effects on the mental and emotional health of doctors-to-be. Some personality traits associated with mental health problems, such as empathy and perfectionism, can be eroded in medical

Medical school curriculum

Medical school curricula differ per institution. Therefore, the curriculum of Leiden University Medical Center (LUMC), the Netherlands, is presented, as it is the institution under study in this thesis. The medical study at the LUMC consists of a bachelor and master program of 3 years each. The first 3 years comprise theoretical education. The last 3 years comprise internships, starting in the second year of the master program. After completion of medical school, a doctor may follow medical training to become a GP (three years). During the first year of training, a doctor works in a general practice under supervision of a GP-educator. During the second year, the doctor follows several internships, e.g. in mental health practice. During the third year, the doctor returns to a general practice for their last internship (Leids Universitair Medisch Centrum, 2022).

students who are vulnerable to the rigors of medical education (Eley et al., 2016; Eley et al., 2022). Conversely, having a (mental) illness is shown to be a motivation for medical students to start medical school and, in turn, to choose for a particular medical specialty (such as Psychiatry) (Heikkilä et al., 2015; Kerebih et al., 2019). Studies suggest that mental health worsens after students begin medical school and remains poor throughout training (Dyrbye et al., 2005). One explanation for this finding is that medical students struggle to find a balance between training and private life (IsHak et al., 2013). For its impact on GPs' CDM regarding mental health problems in children and youths, it would be clinically relevant to explore mental health problem-related symptoms among doctors-to-be, of whom some will become GPs.

Definitions used in this thesis

Mental health problems are 'health conditions involving changes in emotion, thinking or behaviour (or a combination of these). These problems are associated with impaired functioning in social, school or family activities' (American Psychiatric Association, 2022). There are many definitions of 'psychosocial problems' in the literature, a term mentioned multiple times in this thesis. For clarity, we use the definition 'impairments, activity limitations and participation restrictions related to mood and living, financial and domestic conditions and interpersonal relationships' (Timalsina et al., 2018). As for 'clinical decision-making' we yield the definition 'decisions regarding 1) identification and diagnosis of a child or adolescent with psychosocial problems and/or 2) managing these problems, e.g., referral to outpatient mental health care services or additional psychosocial services' (Simmons et al., 2013; National Library of Medicine, 2022). This thesis also takes into consideration actions followed by doctors' (internal) decision-making, which might influence other professionals' CDM as well. Hence, we alternately yield the term 'way of working', defined as 'an overarching term with which organizations (e.g. general practices) describe how different parts (e.g. GPs and other professionals) work together to achieve optimal results. It describes the desired situation or future state of a transforming organization.' (Gimberg, 2023).

Objective and outline of this thesis

This thesis is constructed of multiple articles, each contributing to answering the main question: 'how do GPs decide on child and youth mental health problems and what is the influence of their (lived) experience regarding mental health problems on this decision?' Each article answers a subquestion. Article 1 focuses on 'how do GPs make decisions regarding psychosocial problems in children and youths?' by means of a mixed methods design: interviews and an online survey among GPs using a question framework and vignettes representative of mental health problems among children and youths in clinical practice. Article 2 answers the subquestion 'can GPs' decisions on child and youth mental health problems be supported by means of a decision-support method?' It comprises a literature search to retrieve studies that involved clinical decision-support methods (CDSM) for GPs' CDM regarding mental health problems among children and youths. Article 3 and 4 are directed at the subquestion 'do doctors-to-be, among whom future GPs, have (lived) experience regarding mental health problems?' by using self-report questionnaires to measure burnout-, depression- and anxiety-related symptoms and possible correlates among preclinical medical students. Article 4 has a similar study methodology compared to article 3, it studies burnout-related symptoms and possible correlates among medical interns.

References

American Psychiatric Association (2022). What is Mental Illness? https://psychiatry.org/patients-families/what-is-mental-illness#:~:text=Mental%20illnesses%20are%20health%20conditions,social%2C%20work%20or%20family%20activities. (accessed June 2 2022).

Berdahl, T., Owens, P.L., Dougherty, D., McCormick, M.C., Pylypchuk, Y., Simpson, L.A. (2010). Annual report on health care for children and youth in the United States: racial/ethnic and socioeconomic disparities in children's health care quality. *Academic Pediatrics*, *10(2)*:95-118.

Bitsko, R.H., Claussen, A.H., Lichtstein, J., Black, L.J., Everett Jones, S., Danielson, M.D., Hoenig, J.M., Davis Jack, S.P., Brody, D.J., Gyawali, S., Maenner, M.M., Warner, M., Holland, K.M., Perou, R., Crosby, A.E., Blumberg, S.J., Avenevoli, S., Kaminski, J.W., Ghandour, R.M. (2022). Surveillance of Children's Mental Health – United States, 2013 – 2019 *MMWR supplements*, *25;71(2)*:1-42.

Braddick, F., Carral, V., Jenkins, R., Jane-Llopis, E. (2009). Child and adolescent mental health in Europe: infrastructures, policy and programmes. *European Communities*, Luxembourg.

Clarke, S.E. (2021). Gatekeeping and general practice in the Australian health system (Doctoral thesis). The university of Sydney, Sydney.

Dunnink, G., Lijs-Spek, W. (2008). Activiteiten basistakenpakket jeugdgezondheidszorg 0-19 jaar per contactmoment. https://www.rivm.nl/bibliotheek/rapporten/295001001.pdf (accessed 26 April 2022).

Dyrbye, L.N., Thomas, M.R., Shanafelt, T.D. (2005). Medical student distress: causes, consequences, and proposed solutions. *Mayo Clinic Proceedings*, *80*:1613–1622.

Eley, D.S., Leung, J., Cloninger, K.M. (2022). A longitudinal cohort study observed increasing perfectionism and declining resilience, ambiguity tolerance and calling during medical school which is not explained by student personality. *BMC Medical Education*, *12;22(1)*:784.

Eley, D.S., Leung, J., Hong, B.A., Cloninger, K.M., Cloninger, C.R. (2016). Identifying the Dominant Personality Profiles in Medical Students: Implications for Their Well-Being and Resilience. *PLoS One*, *11(8)*:e0160028.

European Commission (2023). Mental health. https://health.ec.europa.eu/non-communicable-diseases/mental-health_en (accessed 26 April 2022).

Gimberg, L. (2023). Way of working. https://changedepartment.nl/woordenboek/way-of-working/ (accessed 25 March 2023).

Haller, D.M., Sanci, L.A., Sawyer, S.M., Patton, G.C. (2009). The identification of young people's emotional distress: a study in primary care. *British Journal of General Practice*, *59(560)*:e61-70.

Hankir, A., Zaman, R. (2013). Jung's archetype, 'The Wounded Healer', mental illness in the medical profession and the role of the health humanities in psychiatry. *BMJ Case Reports*, *12*;2013:bcr2013009990.

Heikkilä, T.J., Hyppölä, H., Vänskä, J., Aine, T., Halila, H., Kujala, S., Virjo, I., Sumanen, M., Mattila, K. (2015). Factors important in the choice of a medical career: a Finnish national study. *BMC Medical Education*, *5;*15:169.

IsHak, W., Nikravesh, R., Lederer, S., Perry, R., Ogunyemi, D., Bernstein, C. (2013). Burnout in medical students: A systematic review. *The Clinical Teacher*, *10(4)*:242-245.

Kerebih, H., Salelew, E., Hailesilassie, H. (2019). Factors associated with medical students' choice of psychiatry as future specialty: a cross-sectional study. *Advances in Medical Education and Practice*, *6;10*:751-758.

Kieling, C., Baker-Henningham, H., Belfer, M., Conti, G., Ertem, I., Omigbodun, O., Rohde, L.A., Srinath, S., Ulkuer, N., Rahman A. (2011). Child and adolescent mental health worldwide: evidence for action. *Lancet, 22;378(9801)*:1515-1525.

Koning, N.R., Büchner, F.L., Vermeiren, R.R.J.M., Crone, M.R., Numans, M.E. (2019). Identification of children at risk for mental health problems in primary care-Development of a prediction model with routine health care data. *EClinicalMedicine*. *17;15*:89-97.

Koposov, R., Fossum, S., Frodl, T., Nytrø, Ø., Leventhal, B., Sourander, A., Quaglini, S., Molteni, M., de la Iglesia Vayá, M., Prokosch, H. (2017). Clinical decision support systems in child and adolescent psychiatry: a systematic review. *European Child & Adolescent Psychiatry*, *26(11)*:1309–1317.

Kozlowski, D., Hutchinson, M., Hurley, J., Rowley, J., Sutherland, J. (2017). The role of emotion in clinical decision making: an integrative literature review. *BMC Medical Education*, *17(1)*:255.

Kramer, T., Garralda, M.E. (2000). Child and adolescent mental health problems in primary care. *Advances in Psychiatric Treatment*, *6*:287–294.

Leids Universitair Medisch Centrum. Public Health en Eerstelijnsgeneeskunde (2022). https://www.lumc.nl/over-het-lumc/afdelingen/public-health-en-eerstelijnsgeneeskunde/ (accessed June 2 2022).

Martinez, R., Reynolds, S., Howe, A. (2006). Factors that influence the detection of psychological problems in adolescents attending general practices. *British Journal of General Practice*, *56(529)*:e594-99.

National Library of Medicine. Clinical Decision-Making – MeSH. https://www.ncbi.nlm.nih.gov/mesh/2009644 (accessed June 2 2022).

Olfson, M., Blanco, C., Wang, S., Laje, G., Correll, C.U. (2014). National Trends in the Mental Health Care of Children, Adolescents, and Adults by Office-Based Physicians. *JAMA Psychiatry*, *71(1)*:81–90.

Onion, D.K., Berrington, R.M. (1999). Comparisons of UK general practice and US family practice. *Journal of the American Board of Family Medicine*, *12(2)*:162-172.

Rimmer, A. (2018). Two in five GPs have had mental health problems, survey finds. *The BMJ*, *362*:k3638.

Roberts, J., Crosland, A., Fulton, J. (2014). GPs' responses to adolescents presenting with psychological difficulties: a conceptual model of fixers, future planners, and collaborators. *British Journal of General Practice*, *64(622)*:e254-261.

Roberts, J., Crosland, A., Fulton, J. (2014). Patterns of engagement between GPs and adolescents presenting with psychological difficulties: a qualitative study. *British Journal of General Practice*, *64(622)*:e246-254.

Simmons, M., Hetrick, S., Jorm, A. (2013). Making decisions about treatment for young people diagnosed with depressive disorders: a qualitative study of clinicians' experiences. *BMC Psychiatry*, *13(1)*:335.

Stead, M., Angus, K., Holme, I., Cohen, D., Tait, G.; PESCE European Research Team (2009). Factors influencing European GPs' engagement in smoking cessation: a multi-country literature review. *British Journal of General Practice*, *59(566)*:682-690.

Suhrcke, M.., Pillas, D., Selai, C. (2008). https://www.euro.who.int/__data/assets/pdf_file/0003/76485/Hbsc_Forum_2007_economic_aspects.pdf (accessed 26 April 2022).

Timalsina, M., Kafle, M., Timalsina, R. (2018). Psychosocial Problems among School Going Adolescents in Nepal. *Psychiatry Journal*, *2*;2018:4675096.

Van Tongerloo, M., van Wijngaarden, P., van der Gaag, R., Lagro-Janssen, A. (2014). Raising a child with an Autism Spectrum Disorder: 'If this were a partner relationship, I would have quit ages ago'. *Family Practice*, *32(1)*: 88-93.

Verhaak, P., van Dijk, M., Walstock, D., Zwaanswijk, M. (2015). A new approach to child mental healthcare within general practice. *BMC Family Practice*, *16(1)*:132.

Williams, J., Palmes, G., Klinepeter, K., Pulley, A., Foy, J. (2005). Referral by Pediatricians of Children with Behavioral Health Disorders. *Clinical Pediatrics*, *44(4)*:343–349.

World Health Organization (2021). https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health (accessed 19

January 2020).

World Health Organization (2023). https://www.euro.who.int/en/health-topics/noncommunicable-diseases/mental-health/areas-of-work/child-and-adolescent-mental-health (accessed 26 April 2022).

Zwaanswijk, M., van Dijk, C.E., Verheij, R.A. (2011). Child and adolescent mental health care in Dutch general practice: time trend analyses. *BMC Family Practice*, 133.