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## **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 6 - General discussion**

In this thesis we aimed to answer 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?’ by answering four subquestions through four studies. In this general discussion, we first describe the main findings of this thesis. Next, we present points of discussion based on the findings and the literature. Then, we elaborate on strengths and limitations of the studies in this thesis. Subsequently, we provide clinical and research implications. Finally, we present our conclusion.

### **Summary of the studies**

Article 1 focused on the subquestion ‘how do GPs make decisions regarding psychosocial problems in children and youths?’ by using a mixed method design (interviews and online survey). This small-sized vignette study describing three cases of children with mental health problems showed three domains of CDM mechanisms: 1) related to the GP, 2) the child and its social context, and 3) the GPs’ collaboration with other youth care providers. GP-related mechanisms were GPs’ primary approach of the problem (somatically or psychosocially) and their self-assessed competence to solve the problem based on interest in and knowledge about youth mental health care. Mechanisms related to the child and its social context included GPs’ assessment of psychiatric (co)morbidity in the child, their sense of self-limitedness of the symptoms of the child and their assessed complexity of the problem. How GPs’ experienced collaborating with youth care providers and if they had specific collaboration agreements with these providers were collaboration-related mechanisms.

Article 2 was directed at the subquestion ‘can GPs’ decisions on child and youth mental health problems be supported by means of a decision-support method?’ by using a literature search to retrieve studies that

involved CDM support methods (CDSMs) for GPs' CDM regarding mental health problems among children and youths. This review yielded fourteen studies on computer-based decision support methods, nine studies on telecommunication methods and two studies on support methods with features matching both computer-based decision support methods and telecommunication methods. These studies used a variety of study designs, e.g. observational, comparative and validation study designs. Identified CDSMs had varying functionalities, e.g. assistance in probable diagnoses and treatment/referral suggestions. Studies describing computer-based methods had better quality compared to studies describing other methods. Some clinical effects of CDSMs were described, e.g. improved screening and referral rates, and reduction in psychological distress. The review provided information on the implementation of CDSMs into general practice, considerations for GPs when choosing a CDSM (such as GP and practice characteristics) and possible ways in which CDSMs support GPs' CDM.

Article 3 addressed 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 among preclinical medical students of the Leiden University Medical Center. Factors related to personality traits and mental state have been measured by means of self-report questionnaires, such as emotional vitality and dispositional optimism. This cross-sectional survey in 433 preclinical medical students showed that 46.0% of the students reported symptoms indicative of burnout, 27.0% of depression and 29.1% of anxiety. The multivariate analyses showed independent correlates for self-reported symptoms indicative of adverse affective states.

Burnout-related symptoms were positively correlated with <6 h sleep per night and need for recovery, and negatively correlated with happiness. Depressive and anxiety-related symptoms were negatively correlated with optimism and happiness, and positively correlated with high need for recovery. The conclusion is that the prevalence for adverse affective states was high among preclinical medical students and mainly

associated with factors related to personality trait and mental state, and need for recovery.

Article 4 aimed at answering, in a group of medical interns, the subquestion ‘do doctors-to-be, among whom future GPs, have (lived) experience regarding mental health problems?’ Factors related to personality traits and mental state, such as engagement and dispositional optimism, were measured using questionnaires – additionally to other factors. This cross-sectional survey showed that 31% of medical interns studied fulfilled the criteria for moderate to severe burnout-related symptoms, with among them 4% fulfilling the criteria for severe symptoms indicative of burnout. Mainly increased emotional exhaustion and, to a lesser extent, increased depersonalisation were the dimensions of burnout most affected. The independent correlates we found suggested that there are risk factors and protective factors involved. The multivariate analysis of these factors showed high work pace and quantity, low dedication, high need for recovery, and low dispositional optimism to be the independent risk factors for burnout-related symptoms. The article concludes that the prevalence of burnout-related symptoms was high among medical interns in this study, and associated with workload- and, possibly, factors related to personality traits and mental state.

### **Points of discussion**

Below, several issues are discussed based on the findings of this thesis and the literature. Successively, we discuss different types of decision-making among GPs, implementation of decision-support methods into GPs’ way of working regarding child and youth mental health problems, and mental health problem-related symptoms among doctors-to-be (among whom future GPs).

### ***Different types of decision-making among GPs***

Our findings show that different modes of decision-making in GPs on mental health problems in children and youths are employed. GPs differ in how they approach a problem of a patient (physically v.s. psychosocially), in their capability to recognize and manage psychosocial problems, as well as their willingness to take up youth-care related tasks. GPs' focus on disease reflects a doctor-centered model, while GPs who focus on quality of life reflect a more patient-centered model (McWhinney, 1985). Our findings suggest three role archetypes GPs may fulfil in their CDM, as previously described by Roberts 2014: 'fixers', 'future planners' and 'collaborators' (Roberts et al., 2014). In our study, GPs who would choose for an immediate referral might be prone to 'fix' the problem straightaway, similar to GPs who primarily considered (generally more tangible and uncomplicated) physical causes. Previous literature suggest this immediate referral might be due to uncertainty about a diagnosis (Koposov et al., 2017). It may be noteworthy that, in our study, GPs who worked longer as a GP seemed also to prefer a somatic approach of psychosocial problems, possibly because current medical training adopts a stronger focus on the patient in their social context compared to earlier training (Roberts et al., 2014; Martinez et al., 2006). Some GPs we have studied may be described as future planners, i.e. GPs who considered cause(s) related to the child and its social context at first, as well as GPs who decided to understand and to solve the problem by themselves – instead of referring their patient to secondary mental health care. These GPs seemed more prone to display shared decision-making, which has been shown to improve behavioural health outcomes in children and increase parent satisfaction (Fiks and Jimenez, 2010). Collaborators, also possibly identifiable in this thesis, were seemingly similar to future planners with regards to their shared-decision approach, as they appeared eager to contact multiple informants (e.g. parents, but also institutions like school) to gain knowledge about the problem situation. They may have differed from other archetypes, however, in that they seemed more likely to have existing collaboration agreements with youth care providers (Roberts et al., 2014).

### *Collaborative decision-making in the Dutch youth care system since 2015*

In the Dutch youth care system per 2015, municipalities have the responsibility for establishing interdisciplinary collaborations between GPs, (local) youth care providers and themselves (VNG, 2022). At first view, this regulation may appeal on GPs identifying themselves as collaborators and, as one might suggest, raise the need for shifting towards more collaborative decision-making among GPs preferring other archetypes (Roberts et al., 2014). However, such a shift might pose some challenges, since health insurance-funded GPs are funded differently for youth care-related tasks compared to other municipality-funded youth care providers. In current form of financing, some GPs may prioritize holding on to traditional ways of working regarding youth care-related tasks, instead of trying new collaborative initiatives – e.g. integrating health care psychologists into general practice and collaborating with local youth teams. One might feel this is a missed opportunity, as local collaborative initiatives have shown promising results regarding availability of child mental health services (VNG, 2022). Therefore, municipalities may want to look for possibilities for financing GPs for youth care-related tasks in the same way compared to other youth care providers, by collaborating with health insurers. Other considerations for improving interdisciplinary collaboration include municipalities and youth care providers taking the first step towards GPs by acquiring knowledge of their competencies and tasks, and by optimizing information exchange (Koning et al., 2018). Also, as many GPs report to receive insufficient resources to carry out their tasks, as illustrated by their mild support for a new national interdisciplinary collaboration agreement, municipalities may gain GPs' trust by attentive one-on-one with or public talks by municipal workers on what they need to help children and adolescents properly, e.g. more time per consultation or money for personnel. Because GPs often have busy time schedules, municipalities might want to consider financing GPs or a representative of their general practice for the extra time they invested to attend such talks. Another option would be to offer accreditation points, mandatory for re-registration as a GP (Koning et al., 2018; Rijksinstituut voor Volksgezondheid en Milieu, 2022). As for these considerations, one



could argue the patient's interest should have main priority, as primary care is expected to be increasingly focused on supplying societal demands in the future (Raad Volksgezondheid & Samenleving, 2023).

### ***Implementation of CDSMs for child and youth mental health problems into general practice***

CDSMs for GPs ideally ensure accurate and timely detection of child mental health problems and appropriate referral, in order to prevent the long-term consequences of these problems (Koposov et al., 2017; Roberts et al., 2014). However, one should take the implementation into account, as our mixed method study suggest GPs differ in their way of working. Therefore, a degree of user flexibility for both provider and patient is recommended when implementing a CDSM; e.g. with regards to understandability and ease of use (Cheng et al., 2017). It is advised GPs are made aware of their considerations regarding their choice of CDSM. Our thesis implies these considerations should be related to the context they work in, such as where their general practice is located (e.g. located in a neighbourhood with young families or in a city center, distance to youth care providers and other facilities), size of their general practice (e.g. number of staff, number of paediatric patients), whether GPs already use CDSMs (e.g. an integrated service in which additional consultations with youth mental health specialists can be requested by the GP) or whether they already have collaboration agreements with youth care providers (e.g. psychologists from a youth and family center who visit the general practice on a regular basis to see paediatric patients), as well as their own attitude and knowledge on mental health problems among children and youths (e.g. way of organizing the consultation, previous education of the GP in this area, as well as having (lived) experience regarding mental health problems themselves) (Verhaak et al., 2015). In the Dutch situation, multiple CDSMs have been implemented over the past years since 2015, most of them focusing on collaboration agreements between GPs and mental health nurse practitioners specialized in youth care (VNG, 2022). Some of the CDSMs focus on direct collaboration agreements between GPs and preventive youth healthcare physicians, others on appointing youth mental health specialists at preventive services –

such as general practices (Koning et al., 2018; Theunissen et al., 2018). Up to now, in the Netherlands, no known CDSMs have been implemented which provide electronic support; e.g. by using electronic health records or generating algorithmic advice on diagnosis and referrals. One could advocate such CDSMs, as first monitoring observations point towards less referrals to secondary mental health care, increased engagement of GPs in youth care-related tasks, broadening of expertise in general practice, patient satisfaction, less perceived stigma by patients and improved interdisciplinary collaboration compared to care as usual. However, before being valuable in its contribution to the timely recognition of child mental health problems, electronic health records should be improved by facilitating accurate recording and increasing the proportion of data that can be entered through forms of structured input (Koning, 2021). Furthermore, while electronic CDSMs seemingly induce less referrals to secondary mental health care, other initiatives such as integrated care models may have additional benefits as they lead to a shift to primary mental healthcare. However, integrated care models may also increase detection rates (Verhaak, 2015).

When implementing a CDSM, the literature suggests several points of attention directed at person(s) regulating the CDSM implementation, e.g. with regards to establishing engagement among primary care providers and management leaders through communication and support (Jeffries et al., 2021). When implementing a CDSM, the literature suggests several points of attention. In general, as any new method, implementing CDSMs into general practice takes time and effort. When implementing, one may roughly shift through the following stages, i.e. exploration (e.g. preparations for implementation), installation (e.g. securing and developing the support needed to put a CDSM into place as intended), initial implementation (e.g. trying out the CDSM and getting better in implementation) and full implementation (e.g. skilfully using a CDSM that is well-integrated into GPs' repertoire) (National Implementation Research Network, 2023). Applied to child and adolescent mental health problems in primary care, one could opine it is

important to devise these implementation phases in advance (e.g. by formulating question framework to inventory needs and wants) and to prepare for unexpected situations during the implementation (e.g. by providing telephone numbers of the person(s) regulating the CDSM implementation when practical questions emerge). Furthermore, it would be advisable to make an implementation plan collaboratively with GPs, mental health nurse practitioners, staff members, secretaries and other key players to adjust the implementation process to the GP, their patients and their way of working in their general practice. Lastly, one could recommend frequent contact moments with these key members to monitor the outcomes of interest.

#### *Functionalities of CDSMs: need for multi informant-based methods*

As can be found in the literature, there are many CDSMs for GPs with varying functionalities; which should be tuned to the way of working and desired effects (Sutton et al., 2020). Best practices in youth mental health assessment involve soliciting reports from multiple informants, such as the child itself and its parents/caregivers (Charamut et al., 2003). Most CDSMs found in the systematic review of this thesis meet this recommendation. For example, the Development and Well-Being Assessment, which requires input from children, their parents/caregivers and their teacher, has been shown to provide the feature for a shared language between primary care and specialized care professionals and parents, as well as having favorable diagnostic characteristics (Goodman et al., 2000; Aydin et al., 2022). To the best of our knowledge, based on our systematic review, a few multi informant-based CDSMs have been (fully) implemented into general practice, examples include MyGRaCE, CHICA, Mobiletype, Youth StepCare, Consultation-liason method (between GPs and psychiatrists), telepsychiatry consultation practice and the MC3 Program. While multi informant-based CDSMs seem promising with regards to improved shared understanding of mental health risk between patients and GPs, GPs' knowledge and confidence while managing mental health problems (e.g. prescribing and monitoring of psychotropics and improved access

to mental health care), increased detection rates, positive impact on communication and user satisfaction; they were reported to be somewhat overwhelming and confusing to patients. Therefore, it is recommendable GPs think carefully about how to engage children, youths and their parents into using the CDSM, as it might be already challenging to involve minors into making decisions about their mental health when no CDSM is involved. It is suggested GPs should determine the extent to which children are able to participate in the decision-making process based on a case-by-case basis, taking into consideration factors related to the child, parents, sociocultural context and factors related to themselves. For factors related to the child, GPs could benefit from having knowledge on cognitive, emotional and social development of children and youths, being aware of the (often nationally organized) legal recognition of children's right to participation and comprehending a child's previous disease experience in cooperation with the child and its parents. For parent-related factors, GPs should be made aware that, traditionally, parents are viewed as the key decision-makers on behalf of their children. However, in cases of serious harm of their child, these decisions may be overridden by the GP. One may suggest GPs should be aware that parents can feel excessively responsible for their children's behaviours and actions, which can lead to wanting to have full disclosure of all (non-) health-related information and protecting the child or youth from (supposedly) irresponsible decisions. In such cases, it might be a challenge for GPs to confer with parents, as overprotectiveness may not be in the child's best interest (e.g. by inducing fear and anxiety in the child). With regards to factors related to the sociocultural context, GPs might benefit from being thoughtful of the sociocultural context of the child and its family, i.e. with regards to family interactions, parental responsibility and authority – as it may also influence children's participation in decision-making. For factors related to GPs themselves, it is suggested GPs should be conscious about possible own ineffective verbal and non-verbal communication skills, an overuse of medical jargon, possible own beliefs that children are not mature and therefore in need of protection and more practical factors which may prevent children's participation in the decision-making process - such as GPs' lack of time for

explanations or discussions with the child (Jeremic et al., 2016).

### ***Mental health problems among doctors(-to-be) and possible implications***

Our findings suggest that symptoms of mental health problems are prevalent in Dutch doctors-to-be and that many graduated doctors, such as GPs, have (had) such symptoms. While the prevalence of mental health disorders, such as anxiety disorder, depressive disorder and alcohol addiction, has increased strongly over the past decade in the general youth and adult population, doctors-to-be are shown to have even higher rates - also compared with other professional groups (Trimbos instituut, 2022). As anyone, doctors-to-be are exposed to overburdening because of school/work, others' opinions (facilitated by social media), personal problems, troubles at home and worries about world issues; e.g. climate change and the corona pandemic (Trimbos instituut, 2022; Rijksinstituut voor Volksgezondheid en Milieu, 2022; Peng et al., 2023; Nederlands Jeugdinstituut, 2021). However, doctors-to-be are particularly at risk, because they are chosen for personality traits that predict responsible doctoring, such as perfectionism and obsessiveness. Starting from early education, doctors-to-be are driven, competitive, compulsive, individualistic and ambitious (Gerada, 2018). It is suggested that these extensively expressed features may counteract towards doctors-to-be when stressed and may lead to mental health problems, as our results seemingly show: doctors-to-be were generally unhappy, unoptimistic, had low dedication, slept <6 hours per night, had a high need for recovery and a high work pace & quantity. After finishing medical school, doctors have apparently protective factors for developing mental health problems, including career and financial security, high status and a generally rewarding job. However, they also have additional risk factors over factors who apply to anyone (e.g. genetic predisposition, early traumatic life events, later bereavements, illnesses and relationship breakdowns), such as difficult working environments and encounters with death (Gerada, 2018; Elliott et al., 2010). Excessive stress in medical training can break the stability of the doctors'(-to-be) health and result in illness, such as headaches, gastrointestinal

disorders, coronary heart disease, self-medication, mental health disorders and, in some cases, suicide (Gerada, 2018). Furthermore, if not recognized and addressed during medical training, (lived) experience regarding mental health problems may impact doctors'(-to-be) professionalism, such as having difficulties in solving interpersonal conflicts, having decreased attention, reduced concentration, loss of objectivity, increased incidence of errors, and improper behaviour such as negligence (Zerubavel and Wright, 2012; Rotenstein et al., 2016). These problems may also negatively influence their own sense of identity as a doctor, especially through depression, as illustrated by doctors who feel guilty because they may find it difficult to fall short providing adequate care (Gerada, 2018; Rotenstein et al., 2016). Lastly, having (lived) experience with mental health disorders may influence doctors' attitude towards mental health problems in their patients, which impacts their doctor-patient relationship through compassion fatigue, overidentification, projection and doctors having a personal agenda. However, some advantages of having (lived) experience have also been described, such as improved empathy and patient satisfaction (Zerubavel and Wright, 2012).

### **Strengths and limitations regarding the studies in this thesis**

This thesis contains multiple strengths. We used qualitative and quantitative study methodologies and study materials for answering the subquestions of this thesis. We believe the studies of this thesis contribute to relatively unexplored research areas regarding GPs' decision-making and provide valuable insight into existing literature. Furthermore, the articles have been written with a practical scope, so our recommendations may be useful for readers working in the fields of study.

This thesis also have some limitations. First, the vignette studies about decision-making included a small sample of GPs, so we are not able to generalize our findings. However, the quantitative data confirmed multiple findings from the qualitative study, which strengthens the reliability of our findings (Venrooij,

2022). Moreover, our findings were in line with the (relatively scarce) literature, e.g. a tendency for a somatic approach among experienced GPs, GPs' sufficient self-perceived competence possibly leading to more thought-out CDM, GPs' refraining from referring to a youth health care provider in case of negative collaboration experiences and the importance of interprofessional collaboration in enhancing the effectiveness of health services offered to the public. Second, there was a possibility of self-selection bias in our studies. Medical students and interns with adverse affective states might have been more prone to participating in the questionnaire study on mental health problems, the same applies for GPs participating in the vignette study; who may have been more interested in youth mental health care. Self-selection bias might have made the study samples unrepresentative of the populations of interest and might have decreased the external validity of our findings, as individuals might be overrepresented who have strong opinions. However, to avoid self-selection bias as much as possible, we tried to reach all doctors-to-be by various ways of recruitment and GPs by actively contacting their general practices (Nikolopoulou, 2022). Third, the interpretation of results of the cross-sectional questionnaire studies was somewhat impeded, because these studies were conducted in one university, because cause and effect could not be disentangled and because of reduced statistical power (dichotomized continuous variables). However, our findings were comparable to similar research, which supports the relevance of our results.

## **Recommendations for future actions**

### ***Clinical implications***

This thesis has several implications for clinical practice. First, it suggests GPs have different styles of decision-making and that there are many factors influencing their decision-making process, among which having (lived) experience with regards to mental health disorders. Therefore, GPs should have the opportunity to choose a CDSM which matches their personal style of decision-making. The systematic review of this thesis shows that many different CDSMs exist from which GPs can choose. GPs choosing a

CDSM matching their way of decision-making may facilitate the implementation of the CDSM into general practice and makes it more likely the GP can retrieve their benefits, such as referral accuracy, and subsequently, cost-efficiency with regards to triage (VNG, 2022; Kolko et al., 2014; Asarnow et al., 2015). However, as one might opine, GPs' interests regarding their choice for a CDSM should be questioned, as primary attention should be paid to the benefits for the child and its family, such as whether the CDSM is usable, valid and trustworthy. Also, one could suggest to strive for more standardization, i.e. GPs using the same CDSM or providing them the opportunity to choose from a small selection of CDSMs, in order to decrease subjectivity and increase objectivity (e.g. to enhance interdisciplinary collaboration). To assist GPs in their decision-making and, consequently, which CDSM to choose, it is recommendable GPs are made aware of possible factors which influence their decision-making. Also, it is recommendable to teach them this process is likely both objective and subjective, which poses an important opportunity for medical education and continued training. This thesis suggests that the objective part of decision-making includes teaching doctors(-to-be) about normal and divergent development of children and youths, as well as giving GPs practical information about CDSMs. The subjective part of decision-making comprises doctors'(-to-be) insight into their possible implicit bias (e.g. norms and values), a bias that occurs automatically and unintentionally, that nevertheless affects judgments, decisions, and behaviors – and therefore possibly requires support by a CDSM (National Institutes of Health, 2023). Additionally, an important question could be about their own experience with mental health problems, as this can influence how they deal with patients having similar struggles (Anshu and Singh, 2017).

Previous literature argue universities have the task to identify students who are suffering from long lasting untreated mental health disorders, not to be confused with students who temporarily experience psychological distress because of the subject taught (e.g. human cadaveric dissection) (Kihumuro, 2022). Ways to fulfill this task include educating medical students about mental health and well-being, providing



low-threshold mental health support and sustaining a proactive (e.g. targeted messaging) - not reactive - approach to mental health; as many students do not seek care (Kihumuro, 2022). Furthermore, in medical education, it is suggested that attention should be paid to stigmatization, as it may contribute to symptom concealment and poses a barrier to accessing mental health services, together with medical students' lack of time (Phillips, 2022). Possible solutions include creating a low-stigma environment, e.g. organizing a Coming Out Proud with mental health illness or to employ less labeling and more descriptive language when discussing students' behaviour (e.g. 'dreamy' instead of 'psychotic') – while still acknowledging the clinical necessity of psychiatric terminology (Hankir, 2014; Gray, 2002). Departments of psychiatry may have an important role in organizing appropriate mental health services and supporting medical students to develop and utilize functional and effective coping strategies. Furthermore, as these are the departments with growing expertise, they might be designated to facilitate the debate between faculty staff and medical students on what defines responsible doctoring and feasible ways to substantiate this concept.

### ***Research implications***

As this thesis provides some information on GPs' decision-making regarding detecting and managing mental health problems in children and youths and methods to support them, this thesis may inspire further research on decision-making of doctors in other medical disciplines – focusing on other types of patients and medical problems. As for CDSMs for mental health problems in children and youths, longitudinal research is needed on their diagnostic accuracy, predictive value and cost-efficiency. The studies in this thesis suggest that (lived) experience regarding mental health problems is prevalent in doctors-to-be. Therefore, it might be clinically relevant to investigate the prevalence of these problems in graduated doctors (such as GPs), as well as possible effects of their (lived) experience on their way of working and their contacts with patients. Additional to more studies on preventive and interventive actions, longitudinal research is recommended on the impact of doctors' (lived) experience on their

personality development and, consequently, their identity as a doctor (Straussner et al., 2018; Zerubavel and Wright, 2012). In this process of growth, reflection of one's own thoughts and actions in medical education and continuous training, together with others, might be helpful as it is shown to be beneficial when for example enhancing learning of complex subjects, deepening professional values and improve attitudes and comfort when learners explore difficult subjects. However, further research is needed to understand how reflection can influence growth in professional capacities and patient-level outcomes in ways that can be measured (Winkel et al., 2017).

## **Conclusion**

Mental health problems among children and youths are common and GPs play an important role in their early detection and management. This thesis suggests their CDM is influenced by the child and its social context, their collaboration with youth care providers, but also with factors related to themselves. The latter may include their view on child and youth mental health disorders, which influence how they make decisions (e.g. if and how they use CDSMs) and - possibly - if they have (lived) expertise regarding mental health problems. The high prevalences of symptoms and their correlates among doctors-to-be give rise for discussion on the importance of doctors'(-to-be) choices regarding what they need and want in both leisure and work, as well as raising and educating them to become balanced individuals who display responsible behaviour towards themselves and others within professional frameworks.

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