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Monitoring Suicidal Behaviour in Dutch Youth Mental Healthcare: A Modified Delphi Approach

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ABSTRACT

The monitoring of suicide-related indicators in youth mental healthcare is important in improving healthcare related suicide prevention. The aim of this study is to develop item-s to be included in a yet-to-be-implemented suicide-related monitoring system in youth mental healthcare in the Netherlands. A modified Delphi approach was used to achieve consensus among healthcare professionals, peer specialists and parents on suicide-related indicators and their definitions. Participants in the Delphi rounds were able to identify nine suicide-related indicators that are relevant when monitoring the quality of care delivered to people with suicidality in youth mental healthcare. The next step is to implement the monitoring in youth mental healthcare and, ultimately, reduce suicidal behavior.


KEYWORDS

Suicide; youth; mental health care; monitoring; delphi

Introduction

Worldwide, suicide is a leading cause of death among young people (World Health Organization [WHO], 2023). Young people with suicidal ideation at age 15 are approximately 12 times more likely to attempt suicide before the age of 30 than young people the same age without suicidal ideation (Reinherz et al., 2006). Approximately 35% of young people (13–18 years old) with suicidal ideation attempt suicide at one point in their lives (Nock et al., 2013). A non-fatal suicide attempt is among the strongest predictors of a fatal suicide (World Health Organization [WHO], 2014; de la Torre-Luque, 2023). The transition from ideation to a non-fatal suicide attempt in adolescents usually begins 1 or 2 years after the start of suicidal ideation (Glenn et al., 2017), and 99.1% of adolescents attempting suicide have a history of self-harm (Duarte et al., 2020). In the Netherlands, where

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this study was carried out, the suicide rates among youth between 10- and 19 years old fluctuated a bit in the past few years. In 2017 there was a sharp and sudden increase from 48 suicides to 81 suicides (2.1 per 100,000) followed by 51 in 2018 (1.3 per 100,000), 67 in 2019 (1.8 per 100,000), 62 in 2020 (1.6 per 100,000), 56 in 2021 (1.5 per 100,000) and 67 in 2022 (1.8 per 100,000) (Centraal bureau voor de Statistiek [CBS], 2024).

Although suicide is a relatively rare occurrence in youth mental healthcare, non-fatal suicide attempts, suicidal ideation and self-harm are very common in these settings (Hawton et al., 2012, 2020; Inspectie Gezondheidszorg en Jeugd [IGJ] 2021; Mokkenstorm et al., 2018). Because these behaviors are risk factors for a fatal suicide attempt, it is important for mental healthcare organizations to recognize, address, monitor, and prevent suicidal behavior as early as possible (Hamza et al., 2012; Niederkrotenthaler et al., 2019, Setkowski et al., 2020). To drive learning and improvement over time within and between organizations, a uniform, national monitoring system is desirable. In the Netherlands, data on factors related to suicide in youth mental healthcare are, in contrast to some adult mental health institutions (Setkowski et al., 2018), not systematically collected and analyzed. All suicides of young people under the age of 18 must be reported to the Dutch 'Healthcare and Youth Inspection', but this data is not analyzed at an aggregated level. Data from a monitoring system could help organizations analyze patterns in suicidal behavior and the associated care and support their capacity to provide the best possible care for young people with suicidal behavior. Through monitoring, aspects of the quality of care for patients with suicidality will become visible, be used as feedback and serve as areas for improvement (Dijk et al., 2015; Kyron et al. 2021; Setkowski et al., 2018; Van De Klundert et al., 2015). To achieve a uniform monitoring system and to encourage discussions and initiatives that can ultimately lead to a reduction in the number of suicide-related behaviors, a convergence of opinion is needed on the suicide-related indicators that are relevant to monitor (Cha et al., 2018; Mérelle et al., 2020). In using the term 'suicide-related indicators', we refer to all kinds of healthcare related factors, such as the presence of a safety plan or motivation for treatment, that, when applied by the professionals, can lead to an increase or decrease in suicidal behavior and that professionals themselves believe are important to monitor in order to improve care and reduce suicidal behavior in their organizations.

A good example of successfully improving the quality of care through data and monitoring is the Dutch National Intensive Care Evaluation (NICE) registry in Dutch somatic healthcare. This registry was established to enable the more than 90 participating intensive care units to quantify and improve the quality of care they offer. Data on patient outcomes,

including mortality, are collected and compared with the national average and among similar hospitals. By collecting data on the first 24h spent in an intensive care unit, for example, the predicted probability of in-hospital mortality can be calculated for a new patient (Arts et al., 2002; Van De Klundert et al., 2015). Modeled after the NICE registry, in the Suicide Prevention Action Network in Healthcare (SUPRANET Care), adult mental healthcare organizations in the Netherlands share suicide-related data in order to optimize their quality of care (Setkowski et al., 2018).

The aim of this study is to specifically examine which suicide-related indicators professionals from youth mental healthcare organizations in the Netherlands consider most relevant to monitor. Currently, there are no national statistics on suicidal behavior among young people in the Netherlands. Monitoring suicide-related indicators will, when implemented, give healthcare professionals more information about the quality of care when treating patients with suicidal behavior in their organizations. This insight will allow mental healthcare organizations and their professionals to learn and improve at the organizational and national levels. Ultimately, the goal of monitoring is to learn from the data and ultimately help decrease suicidal behavior in youth mental healthcare organizations.

The suicide prevention indicators resulting from this study, together with shared definitions, will, in a further study, be the first step in establishing a uniform monitoring system. The aim of a uniform monitoring system is to provide meaningful feedback to youth mental healthcare organizations from peer specialists, parents, and professionals (van Dorp et al., 2021).

This project is part of a national project (In Contact Blijven, ‘Stay in touch’) that is intended to reduce the number of suicides and non-fatal suicide attempts in youth mental healthcare in the Netherlands (Branches Gespecialiseerde Zorg voor Jeugd [BGZJ], 2021). “Stay in touch” strongly focuses on sharing knowledge and learning from experience by jointly developing quality standards, training programs and monitoring systems.

Method

For this project a (modified) Delphi approach was chosen which is a technique for systematically collecting the opinions of a large number of, for example, community members or practitioners in a certain domain or on a particular topic, with the goal of reaching consensus. In a Delphi study, participants can provide their input anonymously, which encourages honest and unbiased responses without fear of judgment or influence from other participants. Also, the lack of face-to-face interactions reduces the impact of individual biases, groupthink, and dominant personalities, leading to

more objective outcomes (Hasson et al., 2000; Jorm, 2015; McPherson et al., 2018; Shang, 2023).

Because the interim results of this project were constantly fed back to the practical context, and the practical context subsequently contributed to the decision-making regarding the next steps, we adapted the second survey round using a modified Delphi method. In the second round, the participants were asked to prioritize and select the top 5 indicators they found most important. During the entire study, the results were constantly fed back to practice, where the next steps of the study were discussed (Figure 1).

In the present study, the Standards for Quality Improvement Reporting Excellence (SQUIRE) 2.0 checklist (Standards for Quality Improvement Reporting Excellence) (Ogrinc et al., 2016) was used as a reporting guideline. During the project, there was close consultation with SUPRANET Care to arrive at a common set of suicide-related indicators to monitor specifically for youths.

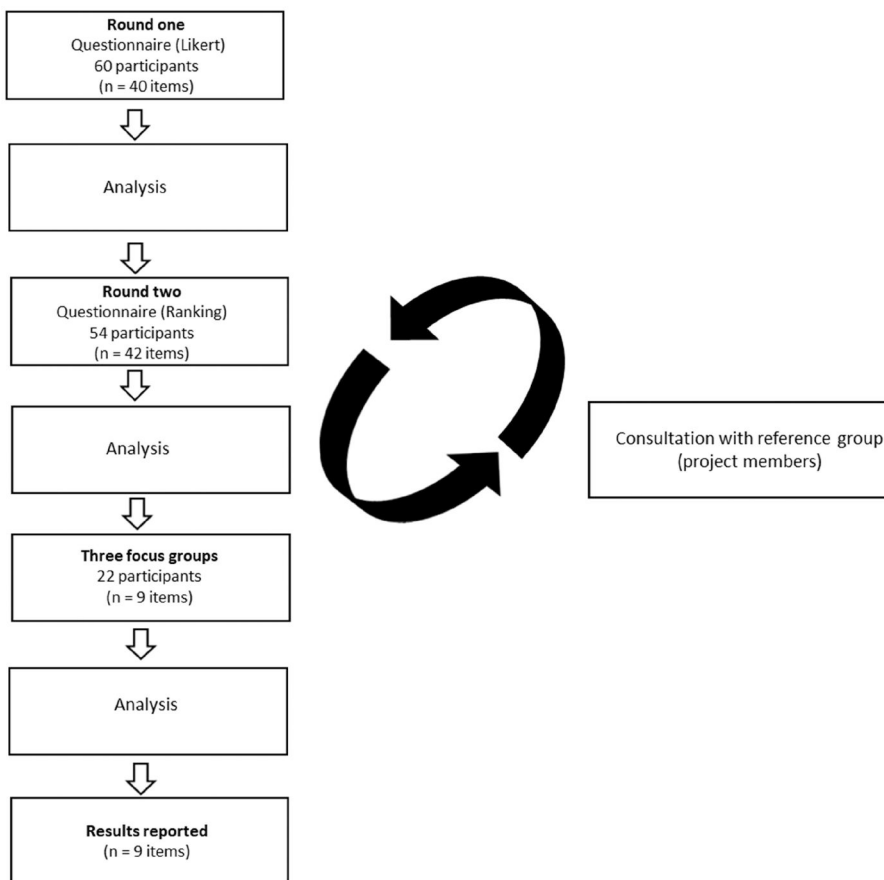


Figure 1. Research design.

Participants

The participants in this study were recruited through the project members' network in youth mental healthcare. Most of the participants worked in the participating youth mental healthcare organizations in which the results will later be implemented. Staff from all levels of the organizations participated, such as group workers, psychologists, and policy staff. In addition, some participants were invited who work with these organizations daily (such as researchers in the field of suicide prevention and youth mental healthcare). In this article, we use the term 'youth mental healthcare' for (secure) residential healthcare as well as outpatient youth mental healthcare. The rationale behind including both in-patient and out-patient services was the desire for unified monitoring across the entirety of youth mental healthcare. The authors and project members discussed the distinctions between in-patient and out-patient services but in the end, the importance of a unified monitor weighed most heavily.

The participants (rounds 1 (n = 60) and 2 (n = 54) of the Delphi survey) were group supervisors in residential youth mental healthcare (N = 10), psychiatrists (N = 10), behavioral scientists (N = 9), psychologists (N = 8), policy advisors working in youth mental healthcare organizations (N = 5), (psychiatric or specialised) nurses (N = 3), researchers in the field of suicide (N = 3), managers in youth mental healthcare organizations (N = 3), an inspector affiliated to the Ministry of Health visiting youth mental healthcare organizations (N = 1), a confidant employed in a youth mental health care organization (N = 1), and a former client (N = 1). Six participants had missing values for job title because their answers on one page were not automatically saved. The participants in the additional focus groups were professionals (N = 15), peer specialists (N = 4), and parents (N = 3).

Procedure and data analysis

Before the beginning of this study, there was already an agreement between the project groups of "Stay In Touch" and SUPRANET Care to monitor the following indicators of suicidal behavior: fatal suicides, non-fatal suicide attempts, suicidal thoughts and statements, and self-harm (Table 1). Within (Dutch) residential youth care, the distinction between self-harm (without intent) and an attempt (with intent) is important in practice, and the members of the project group found these definitions to be the most workable in the context of monitoring suicidal behavior.

Step 1: Item generation

Before the participants received the first survey, 40 suicide-related items were defined. The aim of this process was to begin with as many suicide-

Table 1. Items defined prior to the study.

Indicator	Definition
Fatal suicide	Deliberately taking one's own life.
Non-fatal suicide attempts	A suicide attempt without a fatal outcome, in which someone has a certain intention to kill himself.
Suicidal thoughts and statements	Thinking or contemplating of suicide, which is expressed in (statements about) desires, wishes to be no longer there and fantasies about the execution of suicide.
Self-harm	Deliberate self-injury or deliberate self-poisoning, where there is no intention to end one's life. This does not include risky behavior such as excessive substance use or self-neglect.

related items as possible that could directly or indirectly influence the suicidal behavior of youth in mental healthcare. Two authors (ML) and (MV) extracted all the relevant items from the key literature (Cha et al., 2018; Meerdinkveldboom et al., 2019; Mérelle et al., 2020; van Hemert et al., 2012). The ultimate list with items for Delphi round one was submitted to the other authors and to the project group of 'Stay in Touch', the members of which also added items and checked items for overlap. Because the selection of the items took place directly in Dutch practice, items were formulated in the Dutch language.

Step 2: Delphi survey rounds

Round 1: In the first round (Supplement 1), the participants (N = 60) were asked the extent to which they considered the 40 items (selected in Step 1) to be relevant to monitor in the context of suicide prevention. Relevance was expressed based on how important an indicator is to monitor for the prevention of fatal suicides or non-fatal suicide attempts in youth mental healthcare. A 4-point Likert scale was used, with scores ranging from 1 = totally not relevant to 4 = totally relevant, along with a 'no opinion' option. For each answer, the participants could provide an explanation in an open text field if desired. At the end of Round 1, the participants were asked whether they considered other items that had not appeared on the list to be important. Prior to the study, consensus was defined by the researchers, in line with the recommendations of Sumsion (1998). These criteria have been maintained following the example of a similar type of Delphi study in the Dutch adult mental healthcare (Setkowski et al., 2020). When 70% of the participants agreed (score 3) or totally agreed (score 4) with an indicator, the indicator remained in the study. When between 45% and 69% of the participants agreed, the indicator was resubmitted to participants in Round 2, and when less than 45% agreed, the indicator was directly eliminated (Sumsion, 1998).

Round 2: To reduce the number of items scored as relevant in Round 1 (almost all) all the remaining items were clustered into three different

categories. This was done following the example of a Delphi study regarding the monitoring system in Dutch adult mental healthcare, Supranet Care (Setkowski et al., 2018). Because the registration system is intended to improve the quality of care, improvements are needed at the client level, the treatment level and the policy level (Setkowski et al., 2024). The items were therefore classified according to these three levels of healthcare: 15 items at the client level, 14 at the treatment level, and 13 at the organization and policy level. The participants in Round 1 (N = 60) received the results of the first round and were asked to provide a score from 1 to 5 for the items in each group, with 5 indicating the most important. The consensus process was not repeated because the two items that had to be re-rated and the two items that were added to the list by participants in Round 1, were also divided among the three groups in order to have all items scored similarly in Round 2. All categories were considered equally important. Based on the scores in Round 2, a selection of three items per category seemed the most logical and also the most feasible for a set of indicators. All survey data were collected using a web-based questionnaire. Up to two reminders were sent to participants who had not responded. All responses were collected anonymously.

Step 3: Focus groups

Finally, three online focus groups were conducted with in total 22 professionals, peer specialists, and parents to refine the definitions of the suicide-related items. The first and second focus group had eight participants and the third had six participants. Some of the focus group participants had also participated in the Delphi rounds. The focus group participants were approached through the network of 'Stay in Touch'. Project members made calls in their own youth mental healthcare organizations or networks to invite participants. Some of the focus group participants had also participated in the Delphi rounds. Each focus group lasted approximately 1.5 hour. In each group, the participants were asked to comment on the definitions of the nine suicide-related indicators that were selected in the study. The preliminary definitions were pictured on screen, and then, the participants were asked to discuss them with one another. The participants were specifically asked to think of a definition that would be useful in practice when administering and monitoring an indicator, (not necessarily a perfectly theoretically correct definition). Occasionally, the participants were asked for a clarification but otherwise there was as little intervention as possible. When most of the participants thought an indicator required a more precise definition, the change was adopted. For most items, there was agreement on a useful definition by the end of the focus group. Focus

groups were recorded online. Three researchers were present at each focus group meeting.

Ethics

This study was approved by the Medical Ethical Committee of Amsterdam UMC (registration number 2020.503). The participants provided written consent. The participants did not receive any incentive to participate.

Results

Round 1

Sixty participants completed the survey. [Table 2](#) shows the results of survey Round 1. There were no items that were immediately rejected based on the first round. The consensus was $\geq 70\%$ for 37 items and 45–69% for three items. Most additional items suggested by participants were mainly related to risk factors or overlapped with items that were already included in the first questionnaire. Two items were added to the list for round two: ‘substance use’ and ‘sudden change in behavior/symptoms’. [Figure 2](#)

Round 2

Fifty-four participants completed the second survey. The results are shown in Supplement 2. The most important items, according to the participants were the following (in the parentheses, we present the weighted score per indicator): ‘discussing suicidality with young person’ (182), ‘involving parents/relatives/significant others’ (129), ‘sudden change in behavior/symptoms’ (103), ‘risk assessment with accompanying action plan’ (159), ‘presence of a safety plan’ (126), ‘proximity of care provider’ (93), ‘multidisciplinary assessment of suicidal behavior’ (143), ‘appropriate care for each young person’ (134), and ‘suicide prevention training of staff’ (125). [Figure 3](#)

Focus groups

During the focus group meetings, the definitions of the abovementioned nine items were discussed. [Table 3](#) shows an overview of the changes made after the discussions in the focus groups. In addition, two items (‘sudden change in behavior/symptoms,’ and ‘risk assessment with accompanying action plan’) were more difficult to concretize and could not yet be added to the minimal data set. The indicator ‘proximity of care provider’ was deemed highly significant, but monitoring it in its current form might not

Table 2. Consensus after Delphi survey round one.

Consensus 90–100% (remained in study)
Multidisciplinary assessment of suicidal behavior
Risk assessment with accompanying action plan
Presence of structure diagnosis
Presence of safety plan
Number of crises contacts
Involving parents/relatives/significant others about suicidality
Treatment aimed at reducing suicidality
Use of evidence-based psychotherapy aimed at treating suicidality
Low-threshold consultation possible with a behavioral scientist/psychologist/psychiatrist
Discussing suicidality with young person
Conversation about suicidality with young person after suicide attempt
Conversation about suicidality with family/relatives after suicide attempt
Conversation about suicidality with team after suicide attempt
Motivation for treatment of young person
Working relationship between young person and healthcare professional
Proximity
Use of CASE methodology
Actively following up on agreements that were canceled for whatever reason
Awareness of 113 Suicide Prevention among young people and relatives
Understanding of social network inside and outside the institution
Training of staff
Warm transfer
Suicidality has a clear and visible place in file
Agreements/coordination on responsibilities with chain partners
Support and aftercare for healthcare providers
Support and aftercare for relatives/family
Consensus 80–90% (remained in study)
Waiting time until first treatment contact
Care after transfer or discharge
Conversation about suicidality with group after suicide attempt
Transfers prior to suicide attempt
Understanding of gender identity and sexual orientation
Presence of suicide prevention attention officer
Deployment of experience experts
Changes/losses in staff
Appropriate care for each young person
Consensus 70-80% (remained in study)
Use of evidence based medication aimed at treating suicidality
Understanding of social media use
Consensus 60-70% (remained in study)
Forced seclusion
Consensus 45-60% (resubmitted in round 2)
Education
Availability of means to commit suicide
Consensus < 45% (directly eliminated)

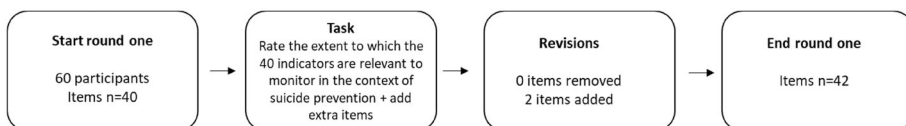
**Figure 2.** Process for survey Round 1.



Figure 3. Process for survey Round 2.

effectively capture its essence, as it relates to the subjective experiences of clients. As a result, in a different study, (i.e. a panel study consisting of both staff and youth), this indicator will be measured.

Uniform monitoring data set

Table 4 shows the prioritized suicide-related items resulting from the Delphi study and focus groups. The following items were included: ‘discussing suicidality with young person’, ‘involving parents/relatives/significant others about suicidality’, ‘presence of a safety plan’, ‘appropriate care for each young person’, ‘multidisciplinary assessment of suicidal behavior’, ‘suicide prevention training of staff’, ‘sudden change in behavior/symptoms’, ‘risk assessment with accompanying action plan’, and ‘proximity of care provider’.

Discussion

The aim of this study was to develop content (items and associated definitions) to be included in a yet-to-be-implemented suicide-related monitoring system for use in youth mental healthcare. Rounds 1 and 2 were initially designed to prioritize and reduce the 40 items, but due to the high consensus on almost all items in Round 1, Round 2 was adapted after discussion with the projectgroup, professionals and authors. It was decided that it was important to include items from three different categories in the final set: client, treatment and policy. The participants in Round 2 were therefore asked to prioritize the items per category. The three items with the highest scores in each group were included. Due to this approach, we included one item (proximity of care provider) that in the overall group had a lower score than the number four (warm transfer) from one specific group. This approach was chosen because this was a field project focused on making the final set as useful as possible in daily practice. The following nine items remained:

1. *Discussing suicidality with the young person* – Discussing suicidality was rated as a relevant indicator for monitoring to prevent suicidal behavior. Even though it is sometimes still believed that talking about suicide can be a trigger there is much evidence that the opposite is true (Aseltine

Table 3. Changes to items made after focus groups.

Indicator	Preliminary definition	Adjustments after focus groups
Discussing suicidality with young person	Young people and care providers discuss suicidality with each other, there is no taboo.	Definition was adjusted to: each young person is asked about the presence and/or seriousness of suicidal thoughts and behaviors.
Involving parents/relatives/significant others about suicidality	For all young people with suicidality, there is contact with one or more relatives at the beginning, during, and at the end of the treatment, or establishing this (in case of objections of the young person or relatives) is a goal in the treatment. A significant other is anyone who belongs to the support system of the young person.	Definition was adjusted to: for every young person with suicidality, one or more important relatives or significant others are involved, during the treatment/stay, in the risk assessment and/or safety plan. A significant other is anyone who belongs to the support system of the young person.
Sudden change in behavior/symptoms	Sudden unexpected (and for example unrelated to treatment) changes in a young person's clinical presentation such as a sudden reduction or worsening of symptoms as a signal of suicidality.	It was discussed that more development time is needed for the definition of this indicator.
Risk assessment with accompanying action plan	A standardized risk assessment that involves estimating the degree of seriousness of the suicidal behavior with an associated action plan.	It was discussed that, due to fluctuation of suicidality, one risk assessment is not enough and that this indicator more has to do with all employees being able to carry out a risk assessment at any time. More develop time is needed to make this more concrete.
Presence of safety plan	A safety plan is an identification plan, care plan or treatment plan that a young person draws up in collaboration with his/her care provider and is specifically aimed at safety in the event of suicidality.	Definition was adjusted to: an up-to-date plan that a young person has discussed with his care provider and that focusses on safety in the event of suicidality. This specific plan can be part of an integral plan in which the risks of other problems are also described.
Proximity of care provider	Proximity of the therapist/healthcare provider to the young person; a lasting connection in which the healthcare provider is available and safe for the young person.	It was discussed that this item should be measured in a different way and more development time is needed for the operationalisation of this indicator.
Multidisciplinary assessment of suicidal behavior	Employees from different disciplines have been involved in estimating the suicidal behavior of a young person.	Definition was adjusted to: employees from at least 2 different disciplines have been involved in estimating the suicidal behavior of a young person.
Appropriate care for each young person	An appropriate trajectory or institution can be provided for any young person with suicidality.	Definition was adjusted to: the care that the treatment team would like is available for every young person with suicidality.
Training of staff	Healthcare providers follow training and education aimed at suicidality (identifying, making it a topic for discussion, staying in contact, dealing with chronic suicidality, capacity, etc.).	Definition was adjusted to: A). Employees follow training and education aimed at identifying and discussing suicidality. B). Employees follow training and education aimed at coping with and treating chronic suicidality.

Table 4. Uniform dataset of suicide-related indicators resulted from the Delphi study and focus groups.

Item	Definition
1. Discussing suicidality with young person	Each young person is asked about the presence and/or seriousness of suicidal thoughts and behaviors.
2. Involving parents/relatives/significant others about suicidality	For every young person with suicidality, one or more important relatives or significant others are involved, during the treatment/stay, in the risk assessment and/or safety plan. A significant other is anyone who belongs to the support system of the young person.
3. Presence of safety plan	An up-to-date plan that a young person has discussed with his care provider and that focusses on safety in the event of suicidality. This specific plan can be part of an integral plan in which the risks of other problems are also described.
4. Multidisciplinary assessment of suicidal behavior	Employees from at least 2 different disciplines have been involved in estimating the suicidal behavior of a young person.
5. Appropriate care for each young person	The care that the treatment team would like is available for every young person with suicidality.
6. Training of staff	A). Employees follow training and education aimed at identifying and discussing suicidality. B). Employees follow training and education aimed at coping with and treating <i>chronic</i> suicidality.
7. Sudden change in behavior/symptoms	More development time needed
8. Proximity of care providers	More development time needed
9. Risk assessment with accompanying action plan	More development time needed

et al., 2007; Mathias et al., 2012; Polihronis et al., 2022). In fact, acknowledging and talking about suicide may reduce suicidal behavior (Blades et al., 2018; Dazzi et al., 2014).

2. *Involving parents/relatives/significant others about suicidality* – A consensus was achieved regarding involving parents/relatives/significant others as a relevant indicator to monitor. This is in line with growing evidence suggesting that involving parents or significant others in the management of the suicidal behavior of young people can have a positive effect on treatment outcomes (Aggarwal & Patton, 2018; Meerdinkveldboom, 2020; Meerdinkveldboom & Steenmeijer, 2020; Sabbe et al., 2020; Setkowski et al., 2020; van Hemert et al., 2012; Wilkins et al., 2013). Guidelines and quality standards also recommend involving significant others when suicidality occurs (NICE Guideline, 2022; van Hemert et al., 2012). However, involving parents can be highly complex, especially when a young person does not want them involved or there is a problematic relationship that also poses a risk to the young person (Mérelle et al., 2020). In this light, participants in our focus groups especially emphasized the importance of allowing a young person to choose who to involve. These individuals need not necessarily be their parents.
3. *Presence of a safety plan* – The ‘presence of a safety plan’ indicator was considered relevant for monitoring. This seems consistent with a recent

- meta-analysis that support the use of safety plans interventions to help prevent suicidal behavior (Nuij et al., 2021). However, more research on the effects of safety planning on suicidality in specific populations such as young people, is needed.
4. *Appropriate care for each young person* – The provision of adequate treatment for every young person with mental problems was considered highly relevant to monitor for suicide prevention. Recently, Mérelle et al. (2020) showed that, waiting lists and staff shortages complicate this process and can worsen the mental health problems of young persons who suffer from suicidal ideation. Finding appropriate care is difficult for young people with a combination of psychiatric and behavioral problems, which often leads to increased pressure on family and the worsening of problems (Mérelle et al., 2020). More research is needed on young people with suicidal behavior who do not find or receive the appropriate care for their mental health problems in time.
 5. *Multidisciplinary assessment of suicidal behavior* – Based on our results, multidisciplinary assessment is a relevant indicator to monitor to help prevent suicidal behavior in young people. Regarding the assessment of suicidal behavior, the literature mainly focuses on instruments and how suicidality can be assessed in an effective way (Carter et al., 2019; Harris et al., 2019). The multidisciplinary guidelines for the diagnosis and treatment of suicidal behavior also focuses on how suicidal behavior can be assessed, but they do not specify how many disciplines or professionals should be involved (van Hemert et al., 2012). Nevertheless, the participants in our Delphi study rated this indicator as relevant to monitor to reduce suicidal behavior in youth mental healthcare organizations. This may stem from the fact that professionals from different disciplines look at suicidality from a different perspective. For example, a psychiatrist, with a background in medicine, has different training and different experience than a clinical psychologist. In addition, the professionals in our study explained that a group leader for example observes different suicide-related behavior than a primary clinician, who is more remote from patients. Thus, the frequency of contact, for example, plays a greater role than the position of a professional. Participants argued that it is not just important to follow the ‘two pairs of eyes’ principle but also to involve a minimum of two different disciplines in assessing a young person’s suicidality.
 6. *Suicide prevention training of staff* – Several studies have found a positive effect for employee training on patients with suicidal behavior. However, studies differ in terms of the content of the examined trainings, healthcare settings and outcome measures and are therefore difficult to generalize (de Beurs et al., 2013, 2016; Dillon et al., 2020;

Donald et al., 2013; Gask et al., 2006; Mitchell et al., 2020; Pluhar et al., 2019). 113 Suicide Prevention developed a training in basic suicide prevention skills, focusing on residential youth care. This training is based on the Multidisciplinary Guidelines for the Diagnosis and Treatment of Suicidal Behavior (van Hemert et al., 2012), the book 'Suicidal behavior in young people' by Meerdinkveldboom et al. (Meerdinkveldboom et al., 2019) and the didactic training model of de Galan (De Galan, 2015). The training focusses on professionals' self-efficacy, that is, their learning by practicing and doing exercises. In addition to the theoretical component, a great deal of attention is paid to learning about the attitude and competencies needed to prevent suicide in young people. The focus is on basis skills in making contact, self-care for staff, involving parents/others and using a safety plan. One major challenge is keeping the knowledge and skills gained through training in the organization up to date due to the high turnover of professionals in this sector. A solution would be to embed suicide prevention trainings in the regular introduction program for new employees. The focus group participants in the Delphi study found it important to be trained not only in dealing with acute suicidality but also persistent suicidality.

7. *Sudden change in behavior/symptoms* – 'sudden change in behavior or in symptoms' was considered relevant to monitor in order to prevent suicidal behavior. This result is in accordance with the Dutch multidisciplinary guidelines for the diagnosis and treatment of suicidal behavior (van Hemert et al., 2012), which indicate that professionals should be alert to sudden changes in the clinical picture or suicidal behavior. Also a sudden change from a gloomy mood to euphoria requires alertness.
8. *Proximity of care provider* – 'proximity of health care professionals was considered relevant for monitoring. When suicidal tension is high in adolescents, professionals often turn to restrictive measures that increase safety and, thus, reduce the risk of suicide. However, often restrictive measures, especially seclusion, lead to increased anxiety and panic (Perers et al., 2022; van Dorp et al., 2022). The empowerment of patients to enable them to make decisions regarding their own safety and to take risks to promote personal development and recovery is known as 'therapeutic risk taking', which is also described in the British NICE (National Institute for Health and Care Excellence) guidelines for the prevention, management and recurrence of self-harm (Self-harm: assessment, management and preventing recurrence NICE guideline. (2022)). In the focus groups of this study, peer specialists explained that at times of high tension they especially require the 'proximity' of staff.
9. *Risk assessment with accompanying action plan* – Based on the results, the presence of a risk assessment with an accompanying action plan

was also considered relevant for monitoring. However, in the international literature, there is contradictory evidence regarding the effectiveness of risk assessment tools. Saab et al. (2022) performed a systematic review regarding risk assessment tools and concluded that clinical judgment should always be included and that for the assessment of suicide and self-harm risk in the entire system, multiagency and a collaborative approach is needed (Saab et al., 2022).

One strength of this study is the wide range of youth mental healthcare organizations, which were residential as well as outpatient, represented by participants from relevant fields. This created support for the outcomes of the Delphi study among the professionals who will eventually put the monitoring into practice. However, due to differences in the organization of youth mental health care, the results may not always be directly applicable to other countries. Nonetheless, they do provide important insights into mental health care indicators that are considered significant by a wide range of professionals in terms of reducing suicidal behavior. 'Stay in Touch' facilitated a learning network in which a variety of themes related to suicide prevention in youth mental health care were discussed and delegates from youth mental health care organizations participated. Because of these learning networks and the early involvement of organizational delegates in the development of the minimal data set, broad support for development and implementation was created. Due to the involvement of the youth mental healthcare organizations and the widespread awareness of this project, this study can be seen as the first step in the implementation process. Also, the response rate for both rounds was good. Nevertheless, it is unusual to have consensus on almost all items in a Delphi round. The authors believe this may have been related to the sensitive topic, namely, youth and suicidal behavior. Regarding something as important as life and death, people may be inclined to take fewer risks which may have led to the rating of almost all items as important in this study. Also, at the intersection of child development, suicidal behavior and mental healthcare, there are many factors at play, which also makes this a multifactorial problem. Perhaps the strong consensus on almost all items in Round 1 is due to using 70% instead of 80%, which most Delphi studies on suicide use, as the acceptance criterion (Barak et al., 2022; Dimeff et al., 2023; Jorm et al., 2018). Furthermore, the participation of more clients/peer specialists in the Delphi rounds may have led to the prioritization of certain items. On the other hand, the focus groups did not reveal that the young people disagreed with the items prioritized by the other participants. In further research, it would be interesting to explore which indicators would be deemed most relevant, for example in a focus group study or panel study,

involving only peer specialists. In addition, the standardization of suicide-related indicators remains complicated, and there was a burden and resistance related to the additional administration surrounding monitoring. On the one hand, it is important not to overburden professionals with administrative tasks, but on the other hand a certain amount of administration is necessary to improve care and patient outcomes (Bickman, 2012; Zayas et al., 2013; Zegers et al., 2020). Although common definitions were developed, correct administration remains dependent on individual professionals, and in clinical practice suicide-related behaviors and events do not always fit unambiguously into one category.

This study contributes to the literature by revealing which indicators professionals find important to monitor in the context of suicide prevention in their organizations. In addition to well-known indicators that are present in most guidelines, such as ‘a safety plan’ and ‘involvement of relatives’, professionals also pointed out more surprising indicators, such as ‘proximity of care providers’. In addition, this study shows that arriving at a definition/operationalisation that is workable in daily practice for a large group of professionals from different organizations is a challenge. When there is consensus about what is important to monitor, the next challenge is to determine exactly how the indicators can be operationalized and measured so that different professionals from different organizations can work with it.

Conclusion

The current study was part of a larger project aimed at implementing a suicide-related monitoring system in youth mental healthcare. This study has developed content (nine suicide-related indicators) that participants in the Delphi study believe should be monitored in organizations to improve the quality of care and thus decrease suicidal behavior. The prioritized items were supported by a large variety of participants from different organizations. Next, this project will focus on piloting and implementing the monitoring system to support continuous learning and improve suicide prevention in youth mental healthcare.

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Disclosure statement

No potential conflict of interest was reported by the author(s).

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