WARRN - A formulation-based risk assessment procedure for Child and Adolescent Mental Health Services (CAMHS). The view of clinicians.

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Ethics Statement

Ethical permission for this study was granted by the Ethics Committee of the Department of Psychology, Swansea University on 28.02.2018 (ref: 0082).

Abstract

Purpose. WARRN is a formulation-based technique for the assessment and management of serious risk (e. g., violence to others, suicide, self-neglect, etc.) for users of mental health services, which has been adopted across most CAMHS across Wales.

Design/Methodology. An online survey was disseminated to NHS clinicians in CAMHS to evaluate their perceptions of the use and effectiveness of WARRN. Data from 88 clinicians were analysed with both quantitative and qualitative methods**.**

Findings. Clinicians reported increased clinical skills, increased confidence in their assessment and management of risk and in safety planning, the increased safety of service users and the general public, and a belief that WARRN had saved lives. The qualitative data showed that clinicians thought a common risk evaluation instrument across Wales and different agencies had created a common language and understanding that improved communication both across and between agencies.

Implications. WARRN appears well accepted in CAMHS services with the view that it is having a very positive effect on service-user well-being and safeguarding and could be implemented in other services.

Originality/value. This is the first report of a formulation-based approach to the management of serious problem behaviours in CAMHS services.

Keywords: risk assessment, safety-planning, suicide, homicide, violence, self—harm, formulation-based assessment.

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Adolescent Mental Health Services (CAMHS): The view of clinicians.

Introduction

Child and Adolescent Mental Health Services (CAMHS) within the National Health Service (NHS) provide assessment and treatment for children and young people with emotional, behavioural, and mental health difficulties. This project aimed to evaluate staff opinions of the usefulness of the Wales Applied Risk Research Network (WARRN) programme for the identification and management of serious risks across CAMHS in Wales. It aimed to identify whether staff believe WARRN's implementation has improved clinical skills and confidence in managing serious risks presenting in children and young people, and whether they believe it has improved the safety of service users and the public, leading to lives being saved.

Suicide and self-harm are major public health problems in adolescents, with suicide being the second most common cause of death in young people (Hawton, Saunders, & O'Connor, 2012). There is a strong association between attempting/completing suicide and poor mental health in this population (Shaffer et al., 1996) and so the assessment and management of risk of suicide is a major part of the work of CAMHS. Likewise, rates of violence are elevated in adolescents (Ellickson & McGuigan, 2000) and the assessment of violent behaviour forms a key part of the role of CAMHS (Firth, Spanswick, & Rutherford, 2009; Tiffin & Kaplan, 2004; Daniel, Weir, and Tiffin, 2013).

4

Methods of Risk Assessment

Traditionally, risk assessment relied upon a judgment from a professional as to the nature of the risk. However, strong evidence emerged that this approach led to poor reliability and poor predictive validity (Monahan et al., 2001). More accurate assessment can be made by the actuarial approach. Here a number of risk factors are assessed and "scored" and the scores combined via a pre-ordained method (e.g., adding up the scores) to produce a final risk score or risk category (Harris, Rice, & Quinsey, 1993). While such actuarial approaches achieve acceptable accuracy, they have been criticised for not including idiographic information and are not sensitive to the context of the individual and changes in this context. A third approach, structured professional judgment, attempts to combine the evidence-based actuarial approach with clinical judgment that can incorporate the idiographic and contextual information. Instruments specific for youth and adolescents have been developed and have a good evidence-base for their accuracy (see Schmidt, Campbell, & Houlding, 2011). Finally, the formulation-based approach has been more recently suggested. Formulation is the process of gathering and integrating information into a hypothesis or explanation of the nature and causes of the presenting problem(s) and moves beyond a simple description of risk behaviours (the "what" of behaviour) to developing a personalised evidence-based explanation of "to who", "when", "where" and "why" there may be a risk (Doyle & Dolan, 2002; Hart, Sturmey, Logan, & McMurran, 2011; Lewis & Doyle, 2009). This approach has similarities to the anamnestic approach where a detailed examination of the individual's previous problem behaviours are analysed to identify themes, contexts, and motivations for the target behaviours (Otto, 2000). Risk formulation is core to the risk assessment and risk management process because it focuses specifically on the individual under assessment,

hypothesising what behaviours may be risky (based on case history, interviews with the service user, discussion with family and carers, and other professionals, etc.), identifying important situational factors that may increase or decrease risk, along with positive protective factors that might mitigate against the risk behaviour. Importantly, risk formulation feeds directly into safety planning and risk management. The formulation-based approach produces a strong-focus on *why* people have had problem behaviours in the past and how they can be mitigated in the future. This may chime more closely with what clinicians actually do and what they perceive as their primary role in caring for the mental health and well-being of their service-users, rather than merely assessing levels of risk. As such, this approach may be more palatable and indeed welcomed by clinicians rather than more formal risk-assessment instruments that tend to place a "number" or "risk category" onto the individual.[1]

WARRN

The Wales Applied Risk Research Network (WARRN) was first commissioned by the Welsh Government in 2003 following a number of high-profile homicides by mental health services users. WARRN recognised that while structured professional judgments were the "gold-standard" of risk assessment, they were impractical to use in many NHS settings due to time constraints, the need for training on each instrument, and the multiplicity of possible risks that any one service-user might have. We, therefore, aimed to develop a "formulation-based" approach to risk assessment and to equip clinical staff with the skills to be able to implement such an approach.

The WARRN training consists of a two-day course. The modules cover basic clinical skills such as how to conduct a clinical interview and what areas of need should be covered,

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[1] We thank an anonymous reviewer for pointing out this possibility to us.

techniques for asking difficult questions, how to formulate, and how to produce risk management plans. The essential need for documentation and communication of presenting risks and the reasons underpinning these risks are highlighted. The value of co-production with the service-user and family/carer is also covered. Standardized paperwork and forms to record the WARRN assessment and formulation are provided for use by the clinicians after the training.

The Implementation of WARRN across CAMHS in Wales

WARRN was already being used across Wales in Adult mental health services and so CAMHS requested a "youth" version of this assessment technique. WARRN was modified in consultation with senior CAMHS staff from all seven health boards across Wales. However, as WARRN essentially teaches the generic skills of risk assessment, risk formulation, and safety-planning, no major changes were needed to this approach other than to take a developmental framework to the assessment and to use age appropriate training vignettes.

Initially, all seven health boards across Wales expressed interest in adopting WARRN. However, Betsi Cadwaldar then withdrew. Currently, Aneurin Bevan, Cwm Taf, Cardiff and Vale, Abertawe Bro Morgannwg, Hywel Dda, and Powys Teaching Health Boards use WARRN as their risk evaluation and safety planning process.

Training to use WARRN is implemented via a hierarchical training programme. WARRN "trainers" are trained by the authors of WARRN (NSG, RJS) who then train their own staff on its use. This has the major benefit that the WARRN trainers are embedded within the organisation receiving training and understand the unique needs and culture of that organisation.

Service Evaluation

A service evaluation was conducted to evaluate WARRN and its impact across CAMHS in Wales. Service evaluations are utilised within the NHS to define and measure current practice within a service (National Health Service, Health Research Authority 2013). Staff opinion is vital for the success of an intervention, as when opinions are positive it enhances the probability of the future success of an intervention (Peters et al., 2013).

The aim of this service evaluation was to measure staff opinions within CAMHS on the impact of WARRN in terms of the value of the skills-based training, its impact on actual clinical management, and possible gains to the safety of service users and the general public. The survey utilised a combination of open-ended and closed questions to assess the effectiveness of WARRN, as such approaches can deepen understanding of the data and allow exploration of multiple lines of inquiry (Johnson, Onwuegbuzie, & Turner, 2007). Qualitative data in particular is useful for exploring complex issues (such as risk assessment) as they can capture nuances in attitudes that may have important clinical implications and may not be fully addressed by fixed quantitative questions (Mertens, 2017).

Method

Survey Design

A survey methodology was used as it is a simple and effective way of gathering information regarding attitudes (Vitale, Armenakis, & Feild, 2008). An online survey that took only 10 minutes was chosen for ease and cost reasons and with the knowledge that online and postal surveys do not differ in response qualities (Deutskens, De Ruyter, Wetzels, & Oosterveld, 2004). The survey utilised a combination of open- and closed-ended questions to assess the effectiveness of WARRN.

8

The survey started with a brief information page. The next pages obtained basic demographic information including age, gender, profession, and which health board the staff member worked in. The survey questions were broadly split into three blocks to assess the different aspects of WARRN's impact. The survey included questions on the number of WARRNs completed each month by the respondent and what percentage of service users they work with have a WARRN risk assessment. Participants were also asked what they found useful and not useful about the WARRN process. To assess effectiveness of the WARRN risk assessment participants were asked about the impact of WARRN on understanding and completing clinical formulations about risk, the safety of service users and the public, and on clinical practice through quantitative and qualitative-oriented questions. The third stage of questions asked about how WARRN could be improved.

Consultations on the content of the survey took place with Public Health Wales, the All Wales Senior Nursing Advisory Group (AWSNAG), several senior CAMHS practitioners, and the Service Users and Carers Research Project (SUCRP).

The survey was conducted using an online survey platform (Qualtrics) which allowed for anonymous data collection and easy distribution of the survey link via staff NHS emails. Senior staff within the NHS distributed an email to all CAMHS staff in the six health boards in Wales that use WARRN, inviting participants to complete the survey via an embedded link and provided follow up reminders to staff to encourage participation. The survey remained open for three months (summer 2018).

Ethical considerations

The project was approved by **** University Ethics Committee. Participant consent was obtained through clicking the anonymised link to the survey sent out to NHS staff's work email addresses.

Participants

Respondents were Child and Adolescent Mental Health Services (CAMHS) staff working within the NHS in Wales. All qualified staff members across the six Health Boards that use WARRN were invited to participate and were sent the link to the survey (451 qualified staff in total). A total of 117 staff responded (a 26% response rate), with 29 individuals being removed from this due to only providing demographic information. A final sample of 88 was used for analyses. Respondents reported using WARRN within a variety of contexts, with most of the sample (89.8%) reporting use within CAMHS community services. The sample was predominantly female (71.6%, 26.1% male, 2.3% prefer not to say). The majority of respondents were nurses (64.2%), 11.4% were psychologists, 11.4% psychiatrists, and 25% "other" classifications (e.g., psychotherapists, occupational therapists, speech and language therapist, etc.).

Data

A mixed methods approach was adopted as this was deemed to provide both an analysis of the proportion of clinicians who valued or did not value WARRN as a risk assessment process, as well as to provide clinicians the opportunity to give qualitative feedback of different strengths and weaknesses of the WARRN method of evaluation and

10

safety-planning and not constrain them to set questions. This is seen as best practice in survey designs (Johnson, Onwuegbuzie, & Turner, 2007; Mertens, 2017).

Quantitative analyses were conducting using SPSS V.25 (IBBM CORP, 2017). Qualitative data was analysed using thematic analysis techniques by three researchers. Each researcher read the comments to the question prompts and coded the statement as to its content. Statements with similar content were coded and then grouped into themes (Howitt & Cramer, 2016). The themes identified by the individual researchers were then compared, refined, and agreed upon in a meeting by three of the researchers (including the supervisor NG). From the items that contributed to each theme, examples of "prototypical" quotes were extracted to illustrate the theme identified.

Results

Quantitative Analyses

Over half the sample (n = 50, 57%) reported that 91-100% of their caseload had a WARRN completed as evaluation of risk status, whilst a minority (n = 8, 9%) reported that only 0-10% of their caseload had a completed WARRN. It was noted that 65% (*n*=57) of the sample reported contributing to the development of WARRNs within their service. The other respondents would have used WARRN assessments to understand the service users' risk status.

Staff were asked questions based upon their opinion of the WARRN training and the risk evaluation process. Responses were collected via a 5-point Likert Scale asking whether they agreed or disagreed with the statement ("not at all", "a limited extent", "not sure", "a significant extent", "a great extent"). For the statistical analysis the scale was collapsed to a

2-point scale of not favourable ("not at all" and "a limited extent") or favourable ("significant extent" and "great extent"). **Clinical skills development.** Four questions related to changes in level of clinical skills (e.g., *"To what extent do you agree WARRN has improved .....?")*. For the questions relating to clinical formulation, risk management/safety-planning, and communicating risk, the answers were positive (see Table 1). However, the WARRN training was not perceived to have helped in asking socially stigmatic questions relating to violence or suicide. For the questions relating to clinical skills in formulation and communication skills the answers were more positive for those that contributed to WARRN assessments than in those that did not.

Table 1. Results from survey.

	All responders		Contribute		Don't contribute		Chi-square for interaction
	Positive	Negative	Positive	Negative	Positive	Negative	
Ask stigmatic questions	51.1	58.9	59.6	40.0	35.5	64.5	ns
Formulation	73.9	26.1*	82.5	17.5*	58.1	41.9	p <.05
Risk management/ safety -planning	70.5	29.5*	75.6	24.6*	61.3	38.7	ns
Communication	68.2	31.8*	77.2	22.8*	51.6	48.4	p <.05
Time	49.2	50.8	59.1	40.9	26.6	73.7	p <.05
Skill set	89.1	10.9*	91.5	8.5*	82.4	17.6*	ns
Confidence	91.8	8.2*	92.2	7.8*	90.1	9.1*	ns
Service-user safety	89.9	10.1*	97.9	2.1*	71.4	28.6	p <.01
General public safety	81.3	18.8*	90.3	9.7*	64.7	35.3	p <.05
SUIs	73.5	26.5*	90.5	9.5*	46.2	53.9	p <.01
Lives saved	80.0	20.0*	92.9	7.1*	50.0	50.0	p <.01

* Chi-square test, *p*< .01

Impact on clinical assessments. Staff were asked three questions based upon their opinion of how the WARRN training and risk evaluation process has changed their work practices ("*To what extent do you agree WARRN has led to any benefits for staff in terms of .....?"*). For the questions relating to skill-set, and to confidence in their risk evaluation skills, the answers were highly positive (see Table 1). For the question related to time taken on assessment the responses were evenly split between positive and negative. However, the responses differed between those that contributed to WARRNs and those that did not, with a more favourable opinion for those that did contribute and an unfavourable opinion for those that did not.

The impact of WARRN on service users and the general public. Staff were asked three questions based upon their opinion of how WARRN training and the risk evaluation process had changed their work practices ("*To what extent do you agree WARRN has .....?"*). The data in Table 1 show that the clinicians strongly endorsed the idea that the safety of services users, and the safety of the general public, had been enhanced due to the introduction of WARRN in Wales. This endorsement was even greater in those that regularly contribute to WARRN assessments (97.9% for safety of services users and 90.3% for safety of the general public). The questions relating to a reduction in serious untoward incidents (SUIs) and on lives saved, were answered more cautiously, with around 61% and 55% of clinicians answering that they were "not sure" of the answer to this question. However, of those that did respond positively or negatively, the response was very positive, particularly for those that contributed to WARRNs, where over 90% endorsed the belief that WARRN has reduced SUIs and has saved lives in Wales.

13

Qualitative Analysis

Participants were asked several open-ended questions relating to the use of WARRN, effectiveness of WARRN, and any future improvements they could recommend. Responses to these questions were coded and from these codes eight themes were derived. The themes were developed by listing all quotes provided and these were independently sorted into themes by three researchers (NG, JT and NS). Once the quotes were sorted independently into themes, the reliability of this was reviewed and discussed by the researchers and consensus reached. These themes and illustrative quotes are presented below.

Multi-agency working, Information Sharing and Communication. Thirty four respondents (38.6%) felt WARRN's biggest impact has been to improve communication and information sharing about risk issues within and across agencies.

"Safer practice as all risks are considered and safety plans are shared with relevant agencies."

"Multi-agency sharing improving communication of risks."

"It (WARRN) is the same in all the health boards, so we are speaking the same language."

"If I am on leave and a crisis occurs with one of my patients, I know that a colleague can pick up the WARRN and get a detailed description of the risks for the patient and this will assist them in their assessment."

"Good for multiagency working and being specific about the risk and the plan."

"It has helped me share information from a CAMHS perspective with other agencies."

Formulation and Risk Management Planning. Forty-four participants (50.0% of the sample) identified that WARRN was extremely useful for risk formulation and risk

management planning. Specifically, respondents reported that the formulation techniques taught by WARRN were helpful and assisted them to successfully plan and manage risk.

"The 4 P's help with formulating the person's difficulty and provide an overview of the young person's difficulties to other professionals. Being able to rate the severity of the risk."

"Think clearly about a formulation for the child's risk, including to others as well as self."

"It helps to give a better picture of the level of risk, if any, of the patient."

"WARRN is a brilliant risk assessment tool."

Clarity. Ten respondents (11.4%) reported that WARRN has helped them to establish clarity of thought regarding risk.

"It focuses the mind on risk."

"Can help you think things through."

"Helps to pinpoint concerns."

Documentation and time. Thirty-nine respondents (44.3%) reported that they found the WARRN documentation too long, although some staff did note that they understood the need for a comprehensive risk evaluation and safety-planning process. Seven respondents (8%) highlighted WARRN as having had a big impact upon their time.

"Length of paperwork, but I understand the need for this."

"Too much information is required, and not helpful when there appears to be very little risk."

15

"I find it repetitive, although it does help you think in detail about the risks."

"Time spent filling in another form, but legal protection if things went wrong."

This theme was also reflected in suggestions for the improvement of WARRN. Thirty-eight respondents (43.2%) reported that WARRN could be improved by reducing the length of the documentation. Clinicians made suggestions that an abbreviated version of WARRN may be useful for individuals presenting with less serious risks.

"More streamlined and quicker to complete. I feel information could be condensed into less boxes."

"Possibly have an abbreviated version for people presenting with less serious risk."

"Brief version for most patients, and an elaborate version for forensic or high-risk groups."

Conceptualisation of Presenting Risks. Twenty-nine respondents (32.9%) reported that WARRN has been a valuable tool for allowing better conceptualisation and clinical reflection on issues of risk specific to the young person concerned. Staff also noted it has made them more mindful about risk.

"WARRN has significantly improved risk assessment, formulation, management and documentation of risk in CAMHS."

"*The WARRN has helped me focus more on the child's needs."*

"It has enabled me to provide better clinical supervision when risk situations arise."

"It has made me mindful of specific questioning and the importance of documenting everything in a very systematic manner."

16

Pan-Wales Risk Assessment. Eighteen respondents (20.5%) felt WARRNs biggest impact has been to create a Pan-Wales risk assessment process and a common language for all staff in CAHMS. Staff reported use of WARRN throughout Wales had allowed for a common language to be created amongst mental health professionals, and for consistency to be created within the risk assessment and safely-planning process.

"Used by most mental health services so there is a common language."

"Consistency means that if every area is using the same tool, information is less likely to be lost."

"All Wales use, same language and formulation 'tool'. Prior to WARRN, various levels and tools."

"Helpful to have a shared tool as people move into different service areas and localities."

"Having worked in CAMHS for a long time, it is good to have a risk assessment tool that is widely used across Wales."

Safer Practice. Nineteen respondents (21.6%) felt WARRN's biggest impact has been to introduce safer working practices. Staff felt the introduction of a more robust risk planning process had been beneficial for increasing staff confidence and skill-set, subsequently leading to safer practice.

"Helped to reduce professionals' worries and fears around risk and provides clearer guidance on management of risk."

"Highlight of risk in every clinical contact with clients."

"Safer parameters when working with high risk young people."

17

Refresher Training. Twenty-one respondents (23.9%) suggested they would like to have more regular refresher training.

"Refreshers needed for teams."

*"More refresher training, **** (a particular area in Wales) haven't been able to access this yet. More CAMHS focused."*

"WARRN refresher training on a regular basis would be very good."

Discussion

The aim of this research was to assess the impact WARRN has had on clinical practice since its inception within CAMHS in Wales. Impact was assessed in terms of the use of WARRN by clinicians and their perceptions of its effectiveness. A secondary aim was to identify any improvements that could be made to bolster the efficiency of WARRN in the future in terms of improved evaluation of risk and enhanced safety plans.

Coverage of WARRN

Previous work has noted variability in risk assessment instruments used across mental health services (Kettles, Robinson, & Moody, 2003) with resultant poor communication of risk. One of the aims of WARRN was to provide a common risk assessment scheme across the country of Wales. Uptake of WARRN across Wales appears high with over 50% of respondents reporting that over 90% of their service-users are assessed via WARRN. This was also evident in the qualitative analysis where two of the themes extracted related to a positive attitude of CAMHS staff about a "Pan-Wales assessment" and to enhanced "Multi-agency working, Information Sharing and Communication" brought about by WARRN. These findings provide evidence that changes to practice following recommendations made

18

following two audits of CAMHS across Wales (Health Inspectorate Wales & Wales Audit Office, 2009; 2013) are being effectively implemented. As WARRN has allowed for standardisation of risk assessment and safety planning across Wales it has led to a shared understanding of risk between mental health professionals and across agencies, and for a common language relating to risk and risk management to be developed. Such improvements mean a more comprehensive understanding of a young person's presenting risks can be created, meaning any subsequent care and treatment provided can be enhanced.

WARRN Training

Overall, staff were positive in their opinions regarding WARRN's impact on their ability to create and complete clinical formulations, address and manage safeguarding issues, and communicate issues of serious risk within and between agencies. CAMHS staff who contribute to the development of WARRNs were significantly more positive about WARRN's impact on helping them to complete clinical formulation and enhance multi-agency communication in comparison to staff who did not complete such assessments. This is likely to be because the staff who use WARRN are practicing these skills daily and have noted differences within their own clinical practice.

Qualitative analyses further supported staff positivity of WARRN's influence on skill-set. In particular, the theme "Formulation and Risk Management" had comments related to specific elements of the WARRN training (e.g., the 4-Ps approach to formulation). Prior to the implementation of WARRN several notable challenges were recognised across CAMHS in Wales including a lack of comprehensive staff training in relation to risk assessment, risk management and safety planning, and inadequate sharing of information within and across agencies (Health Inspectorate Wales & Wales Audit Office, 2013). These findings provide

19

compelling evidence to indicate that staff believe that WARRN has helped rectify or reduce the problems identified within the governmental inspection.

Impact of WARRN

CAMHS staff reported that WARRN has had a large and positive impact on their skills-set and in their confidence in assessing and managing serious risks in children and young people using the service. This is corroborated by qualitative comments in which clinicians discussed how WARRN has helped them put risk management at the front and centre of their clinical work and ensure that risk assessments are always accompanied by comprehensive care plans (see themes of "Safer Practice" and "Formulation and Risk Management Planning"). The increased staff confidence apparent in these data is of importance as clinicians' accuracy and ability to implement safety plans are greater when the clinician is confident of their assessment (McNiel, Sandberg, & Binder, 1998).

As mentioned in the Introduction, the formulation-based approach focusses the clinician to try to understand motivations and drivers behind past problem behaviours of their service-users in order to reduce/eliminate similar future behaviours. The high-levels of satisfaction in the WARRN process might reflect this focus as the clinician is seen to be helping the service-user rather than merely giving a "risk-rating" to the behaviour, and clinicians may see this as more in line with their role of safeguarding the young person from the consequences of such behaviours.

Perhaps the most important results of the survey pertain to questions related to the safety of service users and the general public. It was clear from the quantitative analysis that WARRN is perceived to have strongly improved both patient safety and the safety of the general public and this is most apparent in those professionals who are contributing to

20

WARRN risk assessment and formulation. The questions related to possible reductions in SUIs and lives saved were also answered very positively, but with more caution, presumably as individual staff members do not have access to concrete examples of these incidents or to official figures. Unfortunately "positive" outcomes are silent and it is difficult to know for certain when a life has been saved or a crisis averted by good clinical practice and accurate risk evaluation and safe guarding of our children and young people.

Time and WARRN

A theme identified in the qualitative analysis was "Documentation and Time". Some staff reported that they believed that WARRN was over-lengthy, rather repetitive, and took too much time to complete. Several staff suggested that the WARRN form could be reduced, particularly for cases where no or little risk had been identified. The quantitative analysis also provided some support for this view, although mainly from staff who do not contribute to the completion of WARRNs. However, some staff acknowledged that they understood the need to complete a detailed analysis of risk that the WARRN process provides. It is also difficult to know which cases are "low" risk without a detailed formulation and analysis of possible risks being completed. Nevertheless, we have listened to this feedback from clinicians and are considering jointly with the Welsh Government and Public Health Wales whether the documentation of WARRN can be made more succinct thus saving clinician's time without any costs in patient or public safety.

Future directions

The issue of the time taken to complete WARRN and the documentation associated with this appears to be an issue for some staff. In response to the WARRN documentation being felt to be repetitive, we can review this and attempt to develop a more succinct and efficient way of documenting the risk evaluation. There was also some suggestion that a

different/shortened form be introduced for "low-risk" service-users. Of course, one can only know a service-user is "low-risk" if a careful consideration of the possible risks has been completed. In such cases, there is no need to complete the formulation/risk management sections of WARRN and staff simply need to state that an assessment has taken place and no-risk issues were identified. We suspect that this approach is not being taken by some staff and so this is an issue for further training and continued professional development.

Some CAMHS staff also requested refresher training and regular updates on WARRN to take place. This is something that is already taking place within the WARRN programme for adult mental health services, and is currently being implemented for CAMHS.

Limitations

The survey was reliant on clinicians who were willing to take the time to answer the survey and this may produce biases in who responds, with perhaps those most attached or favourable to WARRN choosing to complete the survey. Alternatively, it might be argued that those with a negative view or "an axe to grind" may self-select to complete such a survey.

In this survey, open-ended questions were used to elicit opinions from staff without imposing set answers or frames of reference. The use of open-ended questions in surveys is regarded as beneficial for capturing participant's individualised perspectives and helping to place quantitative data into context (Vitale et al., 2008). However, open-ended questions take much longer to complete than quantitative evaluations and this may not be possible in a time-limited environment such as a busy mental health service. We found that many answers were short or only single words, which sometimes made their meaning ambiguous or unclear. To rectify this in the future, it may be useful to select a subset of staff to interview on their

22

opinions of WARRN. Interviews would allow for exploration and clarification of their attitudes and would allow for more time to be spent discussing the pros and cons of the WARRN approach to clinical risk assessment and safeguarding of our young people (Kvale and Brinkman, 2008).

Conclusion

WARRN is based on the formulation-approach to risk assessment and risk management. However, we were unsure if this approach would be welcomed by those involved in front-line clinical practice. Incorporating the views of clinicians is considered a beneficial way of reducing the research-practice gap encountered when implementing new methodologies and approaches within the health service (Henderson, MacKay, & Peterson-Badali, 2006) which was a key aim of WARRN. Surveying clinicians allowed nuances in what works and what does not work in the field to be investigated, as well as providing suggestions on how to change or improve this.

Overall, clinicians working in CAMHS services in Wales perceive WARRN to have improved their skill-set and confidence in conducting risk assessments and safety plans. In addition, staff believe that WARRN has provided a unified approach to risk assessment across the country and across mental health services as a whole. Finally, staff believe that WARRN has improved service-user safety and the safety of the general public, with many believing that lives have been saved by the use of this approach. We hope these results will encourage others to adopt the WARRN process, or a similar formulation-based approach to risk evaluation, into child and adolescent mental health services beyond Wales.

Key Practitioner Message

What is known?

- Risk assessment of service-users for serious incidents (such as suicide attempts, violence to others, and sexual harm) and safety-planning are key elements of the work of CAMHS. WARRN is a formulation-based risk assessment and safety-planning process adopted by all but one CAMHS organization in Wales.

What is new?

- WARRN is a novel formulation-based approach to risk evaluation and safety-planning in children and adolescents.

- Responses from professionals working in CAMHS across Wales about the value of WARRN were gathered via an on-line survey using both quantitative and qualitative questions.

- Views on the WARRN process were highly positive with clinicians reporting greater clinical skills and increased confidence in their ability to complete risk assessments and safety plans. They also believed that WARRN has produced greater service-user safety, the safety of the general public, and has saved lives.

What is significant for clinical practice?

- The findings suggest that the Welsh Government and their clinical advisors have developed and established an effective formulation-based approach to risk assessment in children and young people that multi-disciplinary clinicians in CAMHS value highly and believe have supported their efforts to safeguard vulnerable children and adolescents with mental health difficulties.

- The findings suggest that WARRN, or similar formulation-based approaches to risk assessment and safety-planning, might be beneficial across similar services across the UK and the rest of the world.

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25

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