WARRN – a formulation-based risk assessment process: Its implementation and impact across a whole country.

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Abstract

Purpose. WARRN is a formulation-based technique for the assessment and management of serious risk for users of mental health services. It has been gradually adopted as the risk evaluation and safety-planning technique for all seven health boards in Wales.

Design/methodology. An online survey was disseminated to NHS clinicians in secondary mental health services to evaluate their perceptions of the use and effectiveness of WARRN. Data from 486 clinicians were analysed with both quantitative and qualitative methods**.**

Findings. Results indicated that the overall impact of WARRN on secondary mental health care was very positive, with clinicians reporting increased skills in the domains of clinical risk formulation, safety-planning, and communication, as well as increased confidence in their skills and abilities in these areas. Clinicians also reported that the "common-language" created by having all NHS health boards in Wales using the same risk assessment process facilitated the communication of safety-planning. Crucially, NHS staff believed that the safety of service-users and of the general public had increased due to the adoption of WARRN in their health board.

Originality/value. WARRN is perceived to have improved clinical skills in risk assessment and safety-planning across Wales and saved lives.

Keywords: risk evaluation, safety-planning, suicide, homicide, formulation-based assessment.

Paper type: Research Paper

1.0 Introduction

Risk evaluation and safety-planning are an essential part of mental health services. Accurate clinical risk assessment and prevention/reduction of serious untoward incidents (SUIs) such as suicide and serious violence to others (including sexual violence), is crucial for the service-users and their family and carers, staff, and the general public (Morgan, 2000). In this paper we assess the perceived effectiveness of a formulation-based approach to risk management (WARRN[1]) as it is used in clinical practice across the health boards in Wales.

1.1 Risk Assessment in Clinical Practice

The Welsh Assembly Government's Care Programme Approach states that a risk assessment must be carried out for *every* service user who comes into contact with secondary mental health services (Welsh Assembly Government, 2010). Thus, risk assessments (and safety plans) must be usable and interpretable by all qualified mental health staff (Webster, Haque, & Hucker, 2013). Many clinical risk assessments, such as the HCR-20 (Douglas et al., 2014) are complex and involve extensive training to use within mental health services (Morgan, 2000). It is not practical or cost-effective to be able to

[1] WARRN stands for the Wales Applied Risk Research Network. This was originally an organisation funded by the Welsh Government to review risk assessment procedures and improve standards in Wales. The resulting recommendations and subsequent proposed system for assessing risk and safety planning was therefore often referred to as "WARRN" and this name has remained.

train every mental health professional on the multitude of clinical risk assessments that are available. Furthermore, most risk assessment instruments are also resource intensive and take significant amounts of time to complete. These issues are at odds with the fast-moving nature of secondary mental health services and the pressure to meet government policy objectives. In addition, a lack of confidence by staff in their ability to use risk assessments due to unfamiliarity with the instrument or inadequate training may result in poorly executed risk assessments and even complete absence of use. Thus, whilst research has produced risk assessment tools with good predictive validity (Monahan et al., 2001Gray et al., 2003; Gray et al., 2011), their use in actual practice may not be as affective (Fazel, Singh, Doll, & Grann, 2012) and they appear difficult to implement in applied mental health services and this may have implications for the safety of service users and the public (Callaghan & Grundy, 2018).

Concerns regarding the large variability in clinical risk assessment instruments used across mental health services have also been raised (Kettles, Robinson, & Moody, 2003). This large variety leads to the poor communication of risk due to the different "languages" being used across agencies or areas.

1.2 WARRN (Wales Applied Risk Research Network)

In 2003 the Welsh Assembly Government (WAG) moved to take action to improve risk assessment approaches in order to improve the safety of the public and service users alike. The WARRN organisation was created to accomplish this goal by providing a national skills-based training programme in risk assessment and management, developed in close consultation with NHS secondary mental health services and service-users to ensure their needs were captured. This consultation concluded that there were: 1) short-comings in

some basic clinical skills of staff in NHS and Local Authorities that were needed to perform a clinical risk assessment, 2) a reluctance in some staff members to broach these very sensitive topics (see Bajaj et al. (2008) for similar issues in primary care), and 3) a reliance on a "tick-box" approach to risk assessment despite risk assessments performed in this manner having little actual influence on the management and safety-planning of the service user.

1.3 Risk Formulation

To overcome these challenges in clinical practice, WARRN took a "formulation-based" approach to risk assessment. Formulation is the process of gathering and integrating information into a hypothesis of the nature and causes of the presenting problem(s) and moves beyond a simple description of risk behaviours to develop a personalised evidence-based explanation of when, where and why there may be a risk (Doyle & Dolan, 2002; Hart, Sturmey, Logan, & McMurran, 2011; Lewis & Doyle, 2009). Formulation moves away from the "what" of risk to the "why" of risk. The use of formulation is considered part of best practice for managing risk by the Department of Health (2007). A risk formulation incorporates empirical literature on risk factors and is considered a process*:* not a one-time event but an assessment that is revised and updated with time or with changes in behaviour or circumstances. This captures the necessity of risk as dynamic and fulfils the requirements of the British Psychological Society best practice guideline (O'Rourke & Bailes, 2006) for ongoing and repeated dynamic risk assessments to be conducted. Importantly, risk formulation also feeds directly into risk management and safety-planning, forming the foundation of how clinicians can manage this risk.

1.4 Implementation of WARRN

The WARRN training involves five major modules. The first module covers the content of the clinical assessment. This includes what areas need to be covered in the assessment that will impact on risk (e.g., forensic history, current thinking, substance use, etc.). The second module covers the process of risk assessment and clinical interview and covers issues such as active listening and non-verbal communication. The third module covers techniques for asking about difficult or sensitive areas, such as normalisation and gentle assumptions (see Shea, 2016). The fourth module teaches techniques for formulation those being the "four-Ps" and the "five-Ws" (Hart, 1996). Finally, the fifth module looks at how to use a risk formulation to develop a risk management plan and the various forms of safety-planning and interventions that can be used to reduce risk.

The training of staff is undertaken via a hierarchical training programme where a small number of senior clinicians from each health board are trained to be trainers to their own staff (via a "Train-the-Trainer" programme). This pyramidal training model is a proven effective approach to teach new skills and produce changes in behaviour (Ducharme, Williams, Cummings, Murray, & Spencer, 2001). WARRN has encouraged a multi-disciplinary approach to risk assessment and safety-planning and this is also reflected in the profile of the WARRN trainers, with many disciplines of staff being included (nurses, occupational therapists, social workers, psychologists, psychiatrists). . The WARRN programme (see above) is delivered over two days. The training materials are also updated annually via feedback from the trainers and in light of advances in the evidence-base of risk assessment and changes in Welsh Government policies.

1.5 Current Study

The WARRN programme was first adopted by two health board (Aneurin Bevan and Cwm Taff) in 2005 and by 2015 had been adopted by every health board in Wales. We wanted to assess clinicians' views about the effectiveness of WARRN in improving clinical practice and enhancing the safety of service users and the general public. A secondary aim was to identify any improvements that could be made to bolster the efficiency of WARRN in the future. Finally, the active participation and contribution of service users to their own mental health care is continually growing and government policy considers it a core component of good clinical practice. Policy by the Welsh Government states that *"service users should be involved in all aspects of their service, and that people have choices and a genuine influence over how services are planned, developed and delivered"* (Welsh Assembly Government, 2008, p. 2). Hence, we also examined the amount of service-user and carer input into the risk assessment and safety planning process.

2.0 Method

2.1 Survey Design

A survey methodology was adopted for the impact assessment as it is a simple and effective way of gathering information regarding attitudes (Vitale, Armenakis, & Feild, 2008). In order to ensure quality responses as well as good response rates, the questionnaire was designed to take no more than 10 minutes. An online survey was chosen for ease and cost reasons and with the knowledge that online and postal surveys do not differ in response quality (Deutskens, De Ruyter, Wetzels, & Oosterveld, 2004).

The survey utilised a combination of open- and closed-ended 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 as it can capture nuances in attitudes that may have important clinical implications and may not be addressed by fixed quantitative questions (Mertens, 2017).

The survey started with a brief information page outlining the aims of the survey. The next pages obtained basic demographic information including age, gender, profession and which health board they worked in. The survey questions were broadly split into three blocks to assess the different aspects of WARRN's impact. The survey included questions about staff's use of WARRN. Participants were then asked what they found useful and not useful about WARRN. To assess effectiveness of WARRN participants were asked about the impact of WARRN on: (1) understanding and completing clinical formulations about risk; and (2) improving the safety of service users and the public. The third stage of questions asked about levels of co-production with service-users and carers. Finally, we asked for suggestions on how WARRN could be improved, and if participants had any further comments on the use or value of WARRN.

When designing the survey, consultation took place with Public Health Wales, All Wales Senior Nursing Advisory Group (AWSNAG) and the Service Users and Carers Research Project (SUCRP). Thus, we had input in the design of the survey from services users, and from both senior and junior staff within the NHS. The pilot version of the survey was sent out to a number of senior clinicians (n=22), all of whom thought that the survey

was quick and easy to use. They felt no changes to the survey were needed, and no technical issues were identified during this piloting period.

The survey was conducted using an online survey platform (Qualtrics). This allowed for anonymous data collection and easy distribution of the survey link via staff NHS emails. Participants within the seven health boards were invited to complete the survey via an email from their health boards AWSNAG lead. This email contained a brief summary of the aims of the survey (to assess staff perceptions of WARRN) and provided an embedded link to the survey. In order to increase response rates a second wave of emails was sent from the WARRN trainers embedded within each health board to the staff within their service (3-4 weeks after the initial email) and a final wave of invitations were sent by the All Wales Care and Treatment Planning (CTP) group. The survey remained open for three months.

2.2 Ethical considerations

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

2.3 Participants

Staff from all seven NHS health boards across Wales were invited to participate in the survey. A total of 550 visits were made to the survey site. Of these 486 completed at least half of the survey and only data from these visits are used in the subsequent analysis.

We do not know the reasons for the non-completion of the survey by some visitors to the website but many would have being attempting to complete the survey during their working hours and may well have had to interrupt participation in order to complete more pressing duties.

The sample was predominantly female (72.4%, 25.1 % male, 2.1% prefer not to say) and most were nurses (64.2%). Most (35.2%) were in General Adult mental health services, 26.5% were in Older Adult mental health services, 14.6 were in Learning Disability Services, and 22.4% described working in "other services" which included specialist forensic and neuropsychological assessment and treatment units.

2.4 Data Analysis

Quantitative analyses were conducting using SPSS V.25 (IBBM CORP, 2017). Qualitative data was analysed using thematic analysis techniques by four 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 in a meeting by three of the researcher (including the supervisor NG). From the items that contributed to the theme, examples of "prototypical" quotes were extracted to illustrate the theme identified.

3.0 Results

3.1 Quantitative Analyses

The sample was split into those who do and do not contribute to the development of WARRNs in their daily practice. This was done as those who contribute to WARRNs were

more likely to be more knowledgeable about WARRN and the impact it has had on mental health services. Overall, around 2/3 of the sample (65.4%) reported that they contributed to the development of the clinical risk assessment through WARRN and this did not differ significantly across the participating services.

3.1.1 Clinical skills development.

Staff were asked questions based upon their opinion of how WARRN training has aided their clinical skills ("*To what extent has WARRN helped you to ….")*. The four-point Likert scale of staff responses were combined into negative evaluations (not at all or a limited extent) and positive evaluations (significant or great extent). For the questions relating to clinical formulation, risk management/safety-planning, and communicating risk, the answers were highly positive (see Table 1). However, the WARRN training was not perceived to have helped in asking socially stigmatic questions relating to violence or suicide. No significant differences emerged between those clinicians that contribute to WARRN assessments and those that do not.

(insert Table 1 here)

3.1.2 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 …..?")*. The five-point Likert scale of staff responses were combined into negative evaluations (not at all or a limited extent) and positive evaluations (significant extent or a great extent). For the

questions relating to skill-set, and to confidence, the answers were highly positive (see Table 1). However, most people noted no benefits in terms of time taken on assessment.

3.1.3 The impact of WARRN on service users and the general public.

Staff were asked three questions based upon their opinion of how the WARRN training and risk evaluation process had changed their work practices ("*To what extent due you agree WARRN has .....?")*. The five-point Likert scale of staff responses were combined into negative evaluations (not at all or a limited extent) and positive evaluations (significant extent or a great extent).

Participants 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 (90.2% and 88.4% respectively). The questions relating to a reduction in SUIs and on lives saved, were answered more cautiously, with around 57% of clinicians answering that they were "unsure". However, of those that did respond positively or negatively, the response was very positive.

3.1.4 Co-production of WARRN.

Staff were asked four questions regarding frequency of their collaborative discussion and sharing of information with service users and carers in the completion of a WARRN risk assessment and safety-plan. Responses were collected via a 5 point Likert

Scale addressing the frequency with which the behaviour occurred (never, infrequently, sometimes, often, always). As these questions concerned how WARRNs were completed we only analysed the data from those people who reported contributing to WARRN assessments. The data were not subject to any statistical analysis.

The results are illustrated in Figure 1. Overall, there were quite high levels of input to the WARRN assessment from both service users and carers, but there are clearly many occasions when this is not happening and around 15% of the sample say they have input from the service user either infrequently or never. Sharing the WARRN formulation with the service user or carer was less commonplace. Here over one third (38% and 34% respectively) never or infrequently shared the risk formulation with the service user or carer.

3.2 Qualitative Analysis

Participants were asked several open-ended questions relating to the WARRN training, their use of the WARRN process for safety-planning, the effectiveness of WARRN evaluations on reducing serious risks, and for suggestions for improvements. Responses to these questions were coded and from these themes relating to use, effectiveness, and improvements were derived. These themes and illustrative quotes are presented below.

3.2.1 Use of WARRN.

Participants were asked what aspects of WARRN they found useful/ helpful or not useful/helpful in their clinical practice. Three themes emerged.

3.2.1.1 The formulation approach helps aid the identification of all aspects of risk for each individual.

Participants explained how the emphasis on formulation helps them consider multiple aspects of risk for each service user and helps them to break down all the factors that contribute to risk for the individual being cared for.

"Helps break down the reasons behind the risks and compartmentalise each aspect."

"It provides a context to risk and is very useful in formulating risks as it breaks risk down into key elements"

"The qualitative nature of the WARRN, as opposed to the FACE. I think it allows for including more data around risk increasing circumstances, and more thorough exploration of different factors affecting the risks".

3.2.1.2 Clear and structured approach is valuable for risk assessment.

Here, many participants noted that WARRN provides a useful and straightforward framework for conducting risk formulation whilst capturing all of the relevant details.

"It's an all-encompassing assessment"

"Provides structure for less experienced members of MDT [Multi-Disciplinary Teams]"

"Clear and concise. Not just tick boxes"

3.2.1.3 Format is not always feasible for certain areas of clinical practice due to length and detail needed.

A number of participants remarked that the current format is not suitable for their service, particularly those working in crisis or fast-response teams. They remarked that the

level of detail needed to complete a WARRN takes away valuable time that should be spent with service users.

"Not good for CRHT [Crisis Response and Home Treatment team] use as we have to do one within 72 hours of taking a client on. It feels as though it is more paperwork and less time to see clients face to face"

"It is time consuming and in a busy work life .. there is not enough time to complete this document repeatedly for my caseload."

3.2.3 Effectiveness of WARRN.

Clinicians were asked how WARRN has impacted their clinical practice in the evaluation of risk and safety planning, for which three themes emerged.

3.2.3.1 Encourages thinking about risk in a comprehensive and holistic manner.

Numerous respondents explained how WARRN has changed the way they think about and conduct risk assessments and safety plans, helping them to adopt a more individualised approach that considers how risk and contextual factors may interact.

"It has made risk assessment more relevant & meaningful rather than an arbitrary tick box exercise."

"It encourages you to consider all aspects of risk and historical incidences which could have led to current risks."

"It has made my risk assessments and thinking about an individual with risks a lot more broader, therefore making it more detailed where it needs to be."

3.2.3.2 WARRN has improved risk management/safety-planning.

A number of respondents mentioned that WARRN has led to increased emphasis on safety-planning and helps guide a plan of action for identified risks.

"Clarification within the Multi-Disciplinary Team of management of risk and how this should be done"

"A well put together WARRN with substantial information about specific risks helps guide the development of robust and well-structured care plans."

"Has made me think more about the management/risk reduction not just the risk itself."

"Allows you to formulate a concrete plan of action in the event a risk should occur."

"There is also an anticipated plan for managing the risk"

3.2.3.3 WARRN has aided a unified approach to risk assessment and produced better communication of risk.

Respondents remarked that WARRN has improved the understanding and communication of risk within and between services and has given a sense of clarity to the risk assessment and safety-planning process.

"Familiarity of WARRN amongst varied departments, professions and health boards helps to create a unified understanding and continuity in information sharing."

"Standard form across all areas. Makes easy to understand risk of those you do not know."

"Standardised process across services. Useful when transferring people from one part of the service to another."

"Use of formulation as an assessment framework, understanding of common terminology from MDT discussion and passing of clinical information"

3.2.4 Improvements for WARRN.

When participants were asked to provide any suggestions to improve WARRN in the future, three main themes emerged.

3.2.4.1 Streamline the WARRN form to make it more concise but still efficient.

Respondents indicated that the current WARRN form is repetitive and could be condensed into a simpler form whilst retaining the information needed for risk formulation and safety-plans.

"Cut out the repetition and sections which seem to duplicate each other and simplify the whole thing. It should be possible to gather all of the important info in 3-4 sides of A4 maximum"

"Please make it a more succinct document. It would be completed more often if it was more time effective and would improve the safety of the service we provide to the public."

"It seems as if it is a repetition, it can be reduced in some parts that are similar, otherwise it is a good tool."

3.2.4.2 Regular refresher courses and continued training.

Many respondents remarked that regular refresher courses on conducting risk formulation and safety-planning would be of benefit, particularly with examples of good and bad WARRNs would be of benefit and would ensure clinical skills are maintained. Many participants also said that they would like to see WARRN training days to become

more in-house and service specific because this will help them become more relevant to the service users they work with.

"Regular WARRN up-dating study days with use of existing WARRNS would be of benefit ... some examples of bad/good WARRNS would be beneficial if discussed with staff"

"*Mandatory refresher training or follow up session with own examples of anonymised WARRNs completed to enhance development of formulation and risk management skills."*

"Perhaps implementation … in particular settings applying to risk and specific settings so clinicians are confident and able to manage this where they work."

3.2.4.3 Service specific issues

Many respondents from Learning Disability services and Older Adult mental health services expressed that they did not feel the WARRN was tailored enough to their needs.

"the training is primarily focused on forensic risk and does not cover risk associated with…vulnerabilities in LD population"

"have more of a learning disability focus on the training"

"Consider tailoring WARRN training to Learning Disabilities as quite MH focused"

"The risk management tool is not focussed on the older adult and does not take into account how physical health can affect mental health in the older persons."

"Not particularly geared towards older adult and people with a diagnosis of dementia."

4.0 Discussion

WARRN uses a formulation-based approach that does not use a standard set of risk factors, but instead encourages a person-centric and holistic evaluation of the person's

needs and their safety. The aim of this research was to assess the impact WARRN has had on clinical practice since its inception within mental health services in Wales. Impact was assessed in terms of the use of WARRN by clinicians working across the seven health boards in Wales and their perceptions of its effectiveness. A secondary aim was to identify any improvements that could be made to bolster the impact and efficiency of WARRN in the future. The results were very supportive of the idea that the clinicians perceived that their skills in risk assessment have been improved and that this, along with the other features of WARRN, has led to a perceived increase in patient safety and the reduction in loss of life.

4.1 WARRN Training

Participants reported that WARRN training had significantly improved their skills in the areas of risk formulation, producing risk management and safety plans, and communicating risk. However, they did not perceive any change in their ability to ask stigmatic questions related to suicide, violence and sexual offending. In turn, WARRN training, and the use of WARRN formulation in practice, had a strong perceived positive influence on clinicians skill-set and confidence in their ability to evaluate serious risks and reduce risk via safety-planning. McNiel, Sandberg, and Binder (1998) have demonstrated that confidence is positively associated with predictive validity.

4.2 Impact of WARRN

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. The questions related to possible reductions in serious untoward

incidents (SUIs) and lives saved were also answered positively, but more cautiously, presumably as the clinicians only have limited access to specific examples of these events and because positive outcomes are “silent”.

4.3 Time and WARRN

Whilst the formulation approach adopted by WARRN has generally been well received by clinicians, several objections were made about the time it takes to complete a WARRN formulation. The majority disagreed that WARRN had benefitted their service in regards to time and this was reflected in the themes extracted from the qualitative analysis. Several respondents criticised the WARRN documentation used to guide the formulation as being repetitive. They discussed how the perceived repetition of required detail often resulted in pages of information that then makes it difficult to clearly discern and effectively manage this risk.

4.4 WARRN in different services

The open-ended questions and qualitative analysis revealed the theme that different services, particularly Learning Disabilities and Older Adult mental health services, perceived WARRN as being more relevant to adult mental health services or forensic mental health services. Many participants expressed the view for changes in the training tp address specific risks within these services (e.g., falls)

4.5 Co-production

Service user involvement and co-production of care helps improve working relationships between clinicians and service-users and boosts the effectiveness of care

plans (Anthony & Crawford, 2000). However, the results of this research show that WARRN formulations often involve input from the service-user and carers but are not routinely shared with service users and carers. This suggests that improvements can still be made to ensure that the risk assessment process and consequential safety plan is collaborative and allows those with lived experience (both service users and carers) to provide valuable insight into their care.

4.6 Future directions.

4.6.1 Length of WARRN evaluations.

Many clinicians perceived the WARRN assessment to be overlong, particularly with regard to the paperwork. The question of how-long an assessment takes is always a difficult question to answer as this really depends upon the amount of available information, how forthcoming the service-user is, and the complexity of the risks. Clearly, in some services (e.g., Crisis Response and Home Treatment) we can see how there may be less time to formulate the risk, and some sort of more immediate "triage-type" assessment may be needed in the short-term. We are currently working on trying to address this issue with pilot schemes in health boards in Wales.

4.6.2 Co-production.

Emphasising the importance of discussing and sharing risk evaluations and safety-plans with service users will be enhanced and emphasised in the WARRN training programme. The WARRN documentation will also be altered to specifically ask about co-production and so ensure that clinicians strengthen their approach to co-production .

4.6.3 Specific Training Needs.

Further improvement to WARRN suggested by clinicians was the need for additional and repeated training and refresher courses to ensure that the benefits to staff confidence and skills of formulation are maintained. Clinicians perceived one-off training courses to be insufficient, and that regular "refresher" sessions emphasising examples of good and bad practice in WARRN formulation would enhance both the use and efficiency of WARRN. We have already produced such a refresher course that updates clinicians three years after they have taken the WARRN course, which is in-line with Welsh Government policy.

A few clinicians also requested for WARRN training to be based "in-house", with trainers from specialised services delivering courses. This would provide the advantage of awareness of issues unique to those specialist services which can be incorporated into the training session. This would also benefit staff by focusing on the common risks that are relevant for their client group and would have the advantage of being able to target specific clinical needs.

4.7 Limitations

A merit of this research was the use of frontline clinicians within NHS secondary care mental health services as the determinants of WARRN's impact. It is clinicians, who rely on WARRN to help identify and reduce risk for their service users in their daily practice and have experienced its effects, who are best positioned to evaluate WARRN's impact. Incorporating the views of clinicians is considered a beneficial way of reducing the research-practice gap encountered when attempting to implement novel approaches within

health services (Henderson, MacKay, & Peterson-Badali, 2006). However, the results of the survey are reliant on staff who are willing to take the time to answer the survey and this may produce biases in who responds.

Finally, this research was based solely upon the self-reported attitudes of clinicians within Welsh NHS services and not on objective data on actual rates of risk behaviours (e.g., homicides pre- and post-WARRN). However, research has shown that success of an intervention or programme is not solely defined by clinical outcomes (Proctor et al., 2009), and there are several important implementation outcomes that can be appropriately measured through attitudes and opinions (Proctor et al., 2011). Utilising the clinicians' voice allowed the impact of WARRN to be examined across these outcomes and resulted in a strong first assessment of its use and effectiveness.

4.8 Conclusion

WARRN was established to improve clinical practice and target several aspects of the risk assessment and safety-planning process. The perceptions of clinicians in this survey about WARRN suggest it has achieved these goals. Clinicians perceive WARRN to have improved their clinical skill-set and their confidence in conducting risk evaluations and safety-planning, and to have improved communication of risk both within and between services and across regions. Crucially, clinicians perceive that WARNN has improved the safety of both service-users and the general public, and some perceived that it has saved lives.

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6.0 Figures

Figure 1. Number of staff who reported different categories relating to the questions about co-production and assessment sharing with service users and carers.

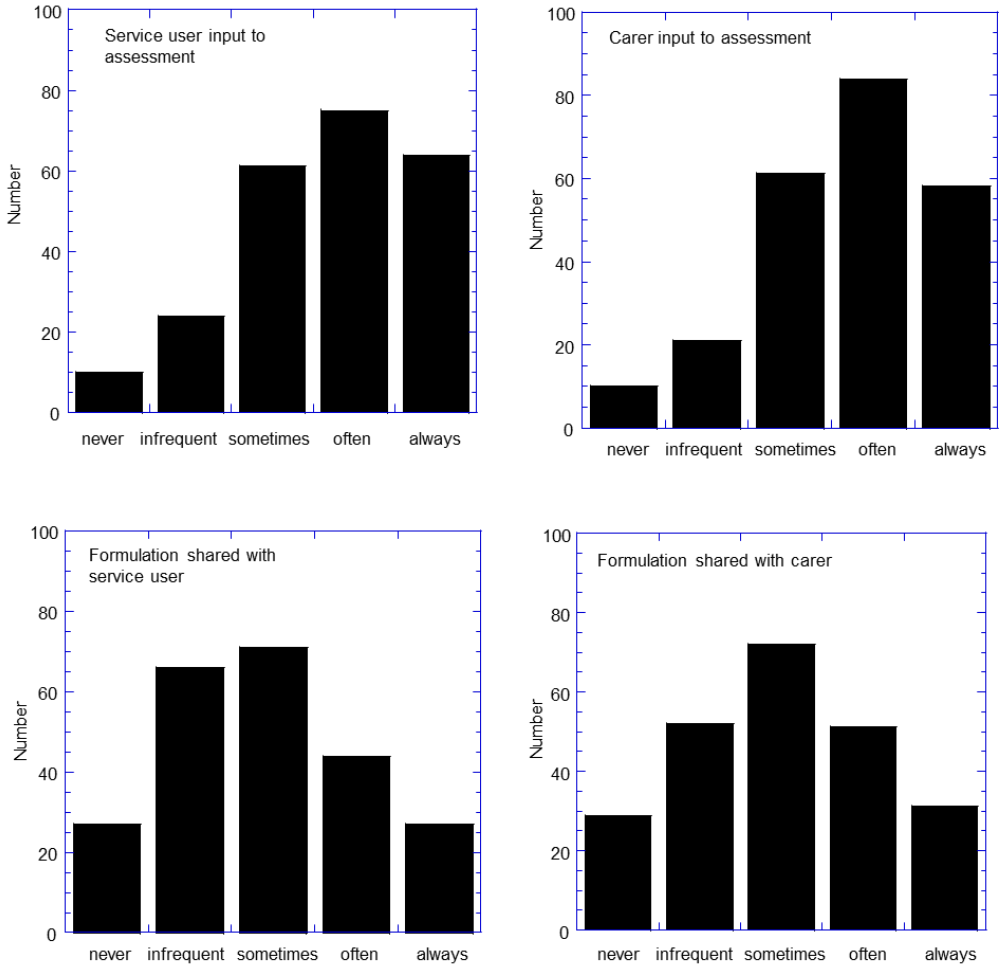

Table 1.

	All responders		Contribute		Don't contribute		Chi-square for interaction
	Positive	Negative	Positive	Negative	Positive	Negative	
Ask stigmatic questions	47.6	52.5	52.0	48.0	37.1	62.9	ns
Formulation	71.4	28.6*	74.8	25.2*	63.5	36.5	ns
Risk management/ safety -planning	70.5	29.5*	73.1	26.9*	64.4	35.6	ns
Communication	68.0	32.0*	70.1	29.9*	62.5	37.5	ns
Time	40.0	60.0*	42.9	57.1	32.8	67.2*	ns
Skill set	77.7	22.3*	81.2	28.8*	68.8	31.2*	ns
Confidence	82.3	17.7*	85.5	14.5*	75.0	25.0*	ns
Service-user safety	87.7	12.3*	90.2	8.8*	80.9	19.1*	p <.01
General public safety	82.8	17.2*	88.4	11.6*	66.1	33.9*	p <.01
SUIs	67.1	32.9*	69.9	30.1*	60.5	39.5	ns
Lives saved	70.7	29.3*	74.8	25.2*	62.8	37.2	ns

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

Biographies

Robert Snowden is a Professor of Psychology at Cardiff University. He received a PhD from Cambridge University and did post-doctoral work at MIT before moving to Cardiff. He has published widely in the fields of visual perception and forensic/clinical psychology. He helps lead WARRN and provides training and consultancy in the field of risk assessments and safety-planning.

Jordan Holt has a degree in psychology from Cardiff University and a Masters in Abnormal and Clinical Psychology from Swansea University.

Nicola Simkiss has a degree in psychology from Cardiff University and a Masters in Abnormal and Clinical Psychology from Swansea University. She is currently studying for a PhD at Swansea University conducting research into the value of mental health literacy interventions in school age children in Wales.

Aimee Smith has a degree in psychology and a Masters in Abnormal and Clinical Psychology from Swansea University.

Daniel Webb completed a BSc and PhD in Psychology at Cardiff University, His PhD looked at how clinical services for patients with Borderline Personality Disorder and the effectiveness of Dialectical Behaviour Therapy for BPD. He currently works for Aneurin Bevan University Health Board's Mental Health and Learning Disabilities Division as WARRN, Care and Treatment Planning and Clinical Audit Lead.

Nicola Gray is a Professor of Psychology at Swansea University and a Consultation Clinical and Forensic Psychologist within the NHS. She received a PhD from the Institute of Psychiatry, London and has worked as both a clinical psychologist in the NHS and the private sector. She is currently seconded from her NHS duties to lead WARRN and provide training and consulting services on risk assessment and clinical practice across Wales.