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The Interventions for Vulnerable Youth (IVY) project is a Scottish Government funded service formed in 2013 to improve practice when working with young people who are at risk of ending. The IVY project uses a multi-disciplinary approach to provide risk formulation, psychological assessment, and intervention for young people with complex needs and high risk or violent behaviour. The team around the child take part in two-hour-long group consultations with the IVY team, including two professionals from social work or psychology backgrounds, at the initial stage of risk formulation. The approach uses affirmative inquiry (Barret, 1995) as a guiding principle, with variations according to the case in hand.

An evaluation of the service was carried out in 2015, eliciting 68 responses from practitioners involved in the IVY project across social work, residential care, police, education and mental health practitioners (Moodie & Anderson, 2015). Advice and support for practitioners was highlighted as a core aim of the consultation service, and respondents perceived the Risk Analysis Reports to be highly accurate and reported increases in their own understanding. However, this evaluation is limited by the nature of satisfaction-report surveys, which tend to return positive outcomes of supervisory relationships that are likely to decline with repetition and familiarity with the service (Worwood & Fredman, 2018). User satisfaction with services in this context, though important, is not a direct measure of the outcomes of IVY service users, and should not be interpreted as such. There is evidence that recommendations derived from satisfaction reports, which typically assess factors such as communication within a



in relation to criminal sentencing. The small size of the IVY project and the breadth of the catchment (all of Scotland) precludes any meaningful analysis of the project as effecting outcomes for the whole population, but it is possible to explore what emerges from consultations and the ability to model the risks held in any one young person. To provide meaningful recommendations for future risk management it is important to be able to correctly frame and predict future outcomes.

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This study aimed to determine the efficacy of group consultation in predicting future risk of dysfunctional behaviour amongst individuals who are part of the IVY project. The seven common behavioural outcomes that are categorised as dysfunctional behaviour by Child and Adolescent Mental Health Services (CAHMS) used in this study were: violence and aggression, sexual violence, suicidal behaviour or ideation, deliberation self-harm, accidental self-harm, issues of abuse or exploitation, or harm from somatic illness.

IVY clinicians rated the likelihood of each occurring in the three-month period following consultation as either high, medium, or low. A score of either medium or high was interpreted as a prediction that the behaviour would occur. Referrers to the service were then contacted at the end of the three-month period to report whether these behaviours could be considered present. Data was recorded as a binary either present or absent. The short length of observation is used due to the rapidly changing circumstances of the young people involved in the service. It is recognised that this may limit the validity of data for behaviours that are less frequent and less easily detected such as harmful sexual behaviour.

Of 48 cases considered, 40 provided meaningful data on the outcomes. In the remaining 8 cases, the referrer either could not be contacted, or they had lost contact with the young person due to relocation or reassignment from the case. Statistical analysis was completed using Receiver Operator Characteristics using the Web Based ROC Calculator (Eng 2022).

The results relating to violence indicate that the consultation process is able to determine risk of future violence within three months of consultation. Prediction in this area is just below the good range of prediction, at AUC: 0.697, but this could be fitted to AUC 0.724. Sensitivity is high (95.7%), with only one occurrence of violence missed, tending towards overprediction (specificity 29.4%), with 12 false positives recorded across the 40 cases.

There were few cases in the sample for whom violence was not a feature of past behaviour; the behavioural stability of violence and aggression compared to other







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This is the first attempt known to the researchers to assess the accuracy of consultation as a means of augmenting mental health service delivery. Despite the increasing use of consultation as an approach in this field, there are often few measurable outcomes assessed in the process (Wordwood & Fredman, 2018).

The results here provide preliminary support for the ability of the IVY project team to make somewhat accurate predictions about the future behaviour of young people in their service. This would indicate that consultation, as a central feature of the processes within IVY, can provide a reasonably accurate picture of the young person and generate useful advice on potential risk, helping to effectively reduce risk.

The data from this study indicates that there is a tendency to over-predict risk, which supports an established pattern of conservative bias in risk assessment amongst groups working with offenders (Cohen, Lowenkamp, Bechtel & Flores, 2020). This may in some cases generate advice and interventions that could lead to increased risk, where overly restrictive care processes or interventions lead to negative outcomes for young people (Bynoe, Collin and Clarke, 2021).

The data would not suggest that consultation could or should replace direct assessment of young people. In line with this, further assessments are undertaken through the IVY service when there are pertinent issues to address or continue working on in relation to the young person under discussion.

The sample size and length of observation period were necessarily limited. Most consultations that took place over the year were included in this study, and the focus was on the immediate behavioural risks of young people. Reporting behaviour over six months may increase predictive accuracy, and replicating the research in other sites to determine whether these findings can reliably be reproduced in other populations of vulnerable young people with high risk behaviour would contribute to more robust evidence on the efficacy of consultation as an approach.





**Kibble IVY Project**

Goudie Street, Paisley, PA3 2LG

0300 303 2012

[ivy.admin@kibble.org](mailto:ivy.admin@kibble.org)

[www.kibble.org/ivy](http://www.kibble.org/ivy)

Registered Office Abercorn House 79 Renfrew Road Paisley PA3 4DA

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