The Pathways to Resilience Study (New Zealand) Whāia to huanui kia toa: Patterns of Service Use, Risk, Resilience and Outcomes

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Introduction

A central research question in the New Zealand Pathways to Resilience Research programme is explaining the role that services play in enhancing outcomes for youth with complex needs and who face high levels of risk located in a range of places (at the individual, family/whānau or community level). Related to this are interests in understanding whether or not resilience is associated with enhanced outcomes for youth and the nature of the relationship between service delivery and the ways in which resilience can be harnessed by services to contribute to enhanced outcomes. In this research resilience is an ecological concept; it includes factors in the individual make-up of youth, in their familial relationships and in their wider social environments (social ecologies) that sometimes work together and sometimes work in tension to shape the social environment within which youth, particularly those exposed to high levels of risk, are able to create the conditions under which they might succeed. Accordingly several measures are used to capture the different dimensions of risk and resilience; these are described below as are the other measures used for the analysis contained in this paper.

The youth who are a particular focus of this research were multiple service users (MSU) and the process by which they were identified and recruited into the study is described elsewhere. In addition to questions about their own backgrounds and their current circumstances, youth were asked a range of questions about their lifetime contact with services and their experience of services. A path analysis was used to model the relationship between risks (individual and contextual); service use history (numbers of services involved with youth) and service quality with resilience as a mediator, and functional outcomes as the dependent variable.

Resilience as a social ecological construct is now well recognised (Ungar, 2012). Interactions between the young person, their familial and social relations, their life circumstances and those providing formal supports (such as services) need to all be

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1 In this study services include: juvenile justice, child welfare, alternative or special education services, or mental health services. They can be provided either by statutory or non-governmental organisations (NGO).
considered when trying to understand the way in which youth facing risks can achieve good outcomes. It is important, therefore, to consider the roles of multiple factors operating in all of these domains in order to build an understanding of the ways in which services can work effectively with youth with complex needs. The analysis presented in this working paper considers the ways in which risks and services interacted together and the role resilience (those resources within youth lives) played in facilitating good outcomes for youth with complex needs.

**Sample**

This analysis concerns a subset of youth recruited into the Pathways to Resilience Research programme from the Auckland metropolitan area and the Palmerston North, rural Horowhenua and Kāpiti, greater Wellington, Christchurch and Dunedin areas during 2009 and 2010 (n = 1494). The 605 youth included in this analysis were purposefully selected because they were concurrent clients of two or more service systems (juvenile justice, child welfare, alternative or special education and mental health). These youth were therefore defined as multiple-service using youth (MSU), meaning that they had received services from at least two service providers in the six months prior to participating in the study. The demographic characteristics and living arrangements for the sample are summarised in the two tables below.

**Table 1: Demographic Characteristics**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>223</td>
<td>36.86</td>
</tr>
<tr>
<td>Male</td>
<td>382</td>
<td>63.14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤15 years</td>
<td>336</td>
<td>55.54</td>
</tr>
</tbody>
</table>
16+ years  269   44.46

**Prioritised Ethnicity**

Māori       294   48.60
Pacific     106   17.52
Pākehā      188   31.07
Other       17    2.80

<table>
<thead>
<tr>
<th>Table 2: Living Arrangements</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both parents</td>
<td>102</td>
<td>16.8</td>
</tr>
<tr>
<td>One parent</td>
<td>178</td>
<td>29.4</td>
</tr>
<tr>
<td>Birth parent and step parent</td>
<td>66</td>
<td>10.9</td>
</tr>
<tr>
<td>Other family/whānau</td>
<td>76</td>
<td>12.5</td>
</tr>
<tr>
<td>Secure or supervised facilities</td>
<td>91</td>
<td>15</td>
</tr>
<tr>
<td>Group, foster homes or adoptive families</td>
<td>57</td>
<td>9</td>
</tr>
<tr>
<td>Independent living</td>
<td>35</td>
<td>5.7</td>
</tr>
</tbody>
</table>

**Measures**

Numerous measures (see annex A) were administered to youth assessing levels of resilience processes, internalised and externalised personal risks, contextual risks related to family, school and community, indicators of normative functional outcomes (such as engagement in pro-social behaviour, presence of a positive peer group, educational and social participation as well as future aspirations), as well as perception of opportunity and positive future-orientated emotions. Youth engaged with multiple services were also asked about their service use experience.
The relationship between risk, services, resilience and functional outcomes

Data Analysis

The following model was tested in the analysis. The model aimed to understand the relationship between personal risks, contextual risks, service provision and experience, resilience, and functional outcomes.
Risk
The model (above) demonstrates that there was a very strong positive relationship between individual risk and contextual risk (.82, \( p < .001 \)) such that youth with high individual risk also reported high risks in their social environments. There was also a positive relationship between individual risk and service use history (.16, \( p < .001 \)); youth who had the greatest amounts of individual risk had contact with a greater number of services (service use history) than those who had less individual risk. Somewhat disconcerting, however, was the small relationship between contextual risk and service use history (.09, \( p < .05 \)). While this relationship was significant, its size suggests that it was only when risks were present within youth themselves (individual level internalizing or externalizing risks) that youth had contact with services. When the risks to youth were only situated within the young person’s context, it was less likely that youth would come to the attention of services.

Service quality and service use history
There was no relationship between the number of services youth had contact with (service use history) and service quality. However, there was a notable and concerning relationship between both individual and contextual risk and service quality; youth with higher contextual (-.25, \( p < .001 \)) and individual (-.27, \( p < .001 \)) risks experienced lower service quality than did youth with lower risks. Service quality assessed the extent to which youth experienced service provision in ways that were respectful of them as clients, empowering and responsive to their situations. Put differently, the greater the exposure to risks (individual and contextual) the less likely it was that services would be delivered in ways that were empowering, respectful and responsive; youth facing the highest risks had the fewest opportunities to experience services that provided them with spaces to exercise agency and to build trust in providers that might assist them to embark upon change processes. On the other hand, service quality also had a direct positive relationship with functional outcomes (.11, \( p < .05 \)) suggesting that when services did work in empowering and enabling ways with youth that better outcomes were achieved.
The role of resilience
Reviewing the impact of risk and service provision on the resilience resources within the young people’s lives, the model suggests that contextual risk (-.46, p = .001) undermined resilience processes in a very powerful way; it had a very strong negative relationship with resilience. Youth who lived in the highest risk environments had significantly fewer resilience resources to call upon to assist them with their positive development. On the other hand, individual risks did not appear to exert any influence upon resilience, but they did undermine functional outcomes (-.11, p < .05). The individual risks youth faced had a direct and negative impact upon outcomes. While the number of services youth had contact with over their lifetime had little effect in terms of promoting resilience processes, high quality services did harness resilience in a significant way (.29, p < .001).

Functional Outcomes
The model suggests that resilience mediated functional outcomes (.38, p < .001). Services that were able to work effectively to integrate the individual, relational and contextual resources (resilience processes) available to youth with complex needs, and compensate for those resources that were lacking, achieved functional outcome effects to a greater extent than did services that did not take active account of the nature of the resilience resources available to youth. The model suggests that resilience moderated the impact of risks youth confronted and this, in turn, contributed to improved outcomes when services were able to work in respectful and empowering ways that took account of these resilience resources.

Conclusion
In conclusion, it is notable that service quality (measured through a set of questions regarding the extent to which providers were able to effectively engage with vulnerable youth) had a strong positive relationship with resilience. Having contact with more services over the lifetime made a modest contribution to resilience but it did not on its own contribute to better outcomes. This important finding suggests that service quality

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3 Resilience was measured in three ways that captured individual dimensions, relationship with caregivers and contextual dimensions of resilience (see Liebenberg et al., 2012).
rather than the numbers of services involved with youth was the key to achieving good outcomes for those exposed to numerous risks and with complex needs. In this regard, it is notable that while service quality on its own had a small impact on functional outcomes, when services were able to enhance youth resilience (that is, when services worked to promote and build upon the positive resources already present in youth lives), they made a much greater contribution to functional outcomes. Focusing on how services are delivered is therefore an important part of securing good outcomes for youth facing significant challenges. Services that are able to recognise and take advantage of the positive resources youth bring into interventions, harnessing them in the support process, and which, conversely, are able to recognise resources that are missing and compensate for these are likely to achieve superior outcomes through their work with youth with complex needs.

Larger numbers of services became involved in the lives of youth facing greater individual risks than was the case for youth facing fewer individual risks, but this did not appear to occur when youth faced higher levels of contextual risk. Individual risks were predominantly those behaviours which brought youth quickly to the attention of a range of organisations and the community at large. It would appear that service providers reacted strongly to these behaviours but with less intensity to the risks in the social environments that surrounded youth. The findings here suggest that contact with larger numbers of services across the life-course was not associated with lower levels of overall risk (more organisations were not necessarily better). Given that there was a relationship between individual and contextual risks, that is, that higher levels of individual risk were associated with higher levels of contextual risk and that, at least in part, these individual risks will have had their origins in contextual risks, focusing attention on contextual risks may well provide opportunities for a more systemic response to the challenges presented by youth with complex needs.

Resilience played an important role in the capacity of young people to achieve positive outcomes when services were involved in their lives. Resilience moderated the impact of risks and, in turn, contributed to improved outcomes when services were able to work in
Respectful and empowering ways and to develop interventions that took account of resources (resilience) located within individual youth contexts. In this way, the strong relationship between resilience and outcomes, and the related connection between service quality and resilience with outcomes suggests a powerful role for services that are able to adopt these intervention styles. On the other hand the model suggests that those providers that are not able to work in these ways may be exacerbating the risks youth confront, or at the very least not producing any benefits in terms of risk mitigation. As youth faced greater risks (individual and contextual) their experience of service quality dropped. More detailed understanding of the ways in which providers respond to risk and harness resilience, and in particular, of the types of service responses that are most effective, is required and this is a focus of further work in this research programme.

References


Annex A Scales and Measures Used in this Analysis

1. Resilience
Resilience was measured using the three sub-scales of the Child and Youth Resilience Measure – 28 (CYRM-28; Liebenberg et al., 2012). Items are rated on a 5-point scale from 1=Does not describe me at all to 5=Describes me a lot. The three CYRM sub-scales assess (1) individual resources including personal skills (such as ability to problem solve, cooperation, and awareness of personal strengths), peer support, and social skills (2) relationships with parents or primary caregivers including physical and psychological caregiving, and (3) contextual resources that facilitate connection to culture, the role of religious and spiritual beliefs, and engagement with and relevance of education. The alpha coefficients were .78, .79 and .79 respectively.

2. Risk
i) Individual Risk
Two components were used to measure individual risk. These covered both internalising and externalising aspects of personal risk. The 12-item version of the Centre for Epidemiological Studies Depression Scale (CES-D-12-NLSCY; α = .85; Poulin, Hand, & Boudreau, 2005) was included to measure risk of depression among participants. Participants rated each item on a 4-point scale from 0=Rarely or none of the time to 3=all of the time with some items being reverse scored. This measure compares favourably to other depression measures such as the Beck Depression Inventory (Wilcox, Field, Prodromidis, & Scafidi, 1998). The reliability of the scale in the current study was strong, with an alpha coefficient of .80.

Externalised risk was assessed using two subscales of the 4-H study of Positive Youth Development (α = .73; Theokas & Lerner, 2006); Delinquency (frequency of behaviours such as theft, vandalism and aggression) and Risk (frequency of use of substances including alcohol, tobacco, marijuana and other drugs such as ecstasy, speed, heroin and crack) sub-scales. Individual items are rated on a 5-point scale from 1=Never to 5=5 or more times. The alpha coefficients in the present study were .87 and .82 respectively.
Externalised risk was also assessed using the *Conduct Problems* subscale of the SDQ questionnaire (Goodman, 1997, 2001), which includes shortness of temper and inclination for aggressive and violent responses, lying, theft and bullying. Items are measured on a 3-point scale from 0=Not true to 2=Certainly true ($\alpha = .60$) with some item being reverse scored. The reliability of the scale in this study was supported, with an alpha coefficient of .70.

**ii) Contextual risk**

Contextual risk reflects exposure to acute or chronic adversity within the family, school and community. *Family risk* was assessed using a composite score of parent/legal guardian presence when youth woke up, returned from school or work, and went to sleep at night. Youth were also asked about the nature of their relationship with parental figures including if they had a mother figure and a father figure and the nature of their relationship with these individuals and the amount of affection received from them. The alpha coefficient in the present study was .49. *School risk* considers youth sense of safety at school as well as sense of engagement with education, using reverse scored items. Questions explore teacher intervention in violent situations, the extent to which youth consider their school a good place to be, and the educational level they hope to attain. The alpha coefficient in the present study was .45. A composite score measuring *sense of community danger* was established using items from the Boston Youth Survey (BYS), with some items being reverse scored. Items assess community cohesion as well as levels of community trust and interaction. The alpha coefficient for this sample was .64.

**3. Service Quality and Service Use history**

A *service quality* score composed of 13 questions assessed personal agency (overall satisfaction with the service, having a say in how the service is provided, as well as relevance and accessibility of the service) and staff respect (respect and sensitivity for youth and their whānau/family including their beliefs, and staff engaging in clear communication with youth), adapted from the *Youth Services Survey* (YSS). This descriptive measure assessed youth satisfaction with services as a whole with a particular focus on the extent to which youth experienced service delivery as responsive to their
situations and which engaged appropriately with their family/whānau or caregivers. Items were rated on a 5-point scale from 1=Strongly disagree to 5=Strongly agree. Alpha coefficients were .86 and .78 for the two services about which youth answered.

*Service use history* comprised a composite score counting the number of services youth had contact with over their lifetime up to the point of the interview. This measure provides a count of services youth have had contact with; that is has the youth ever had contact with a service, and if so, how many times have they been a client. The service list covers child welfare, juvenile justice (including contact with the police), educational supports beyond regular classroom programming and mental health services. The alpha coefficient for this measure was .81.

4. Functional Outcomes
Functional outcomes were measured in five different ways. The measure was designed to measure a number of key normative, age-appropriate dimensions of youth lives:

i) Pro-social behaviour
This was assessed using the SDQ pro-social behaviour subscale (Goodman, 1997, 2001) which assesses youth capacity for kindness, sharing and concern for others. Positive social interaction is measured on a 3-point scale from 0=Not true to 2=Certainly true ($\alpha = .66$). The alpha coefficient for the scale was .63.

ii) Positive peer group
An adapted and reverse-scored list of questions from the fourth and fifth cycles of the National Longitudinal Survey of Children and Youth, included in the Canadian PRYM survey instrument, upon which the current research is based, was used to obtain information surrounding peer activity. The alpha coefficient for this set of questions was .91.

iii) Future aspirations
Future aspirations were measured using two different sets of questions. Firstly, the Satisfaction with Life measure (Diener et al. 1985) in which youth ranked five questions assessing their overall satisfaction with life on a five point scale from 1=Strongly disagree to 5=Strongly agree ($\alpha = .87$). Secondly, two supplementary questions assessed
youth confidence in their futures by asking them to rank the extent to which two statements relating to their thoughts about the future described them on a five point scale where 1=Does not describe me at all to 5=Describes me a lot. The alpha coefficient for this complete set of questions was .85.

iv) Educational involvement
Involvement in education was assessed by answer to a single yes/no question that asked if youth were enrolled in any school subjects at the time of the survey. Youth did not have to be attending a mainstream school to answer yes to this question. For instance, they could be enrolled in Te Aho o Te Kura Pounamu (The Correspondence School) or attending an alternative education programme in their local community.

v) Social Participation
Levels of social participation were assessed using a composite score of 8 questions that measured the extent to which youth participated in community-based activities. Youth were asked to rank themselves on a 5 point scale where 1=Does not describe me at all to 5=Describes me a lot and to identify the frequency of their involvement in nominated activities. The alpha coefficient for this set of questions was .65.