

**Cross-cultural consultation leading to the development of a valid measure of youth
resilience: The International Resilience Project¹**

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Abstract

In this paper, an innovative 14-site, eleven country, collaborative investigation of resilience is described. As part of a larger mixed methods study to understand resilience as a social and ecological construct, a 58-item measure of resilience was developed. Piloting of the measure with 1451 youth ages 13-23 confirmed the measure demonstrates good construct validity. In this paper we describe the study, the measure, and discuss implications for understanding resilience across cultures and contexts.

Keywords: resilience, cross-cultural collaboration, developmental assets, multi-site research, youth

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Cross-cultural consultation leading to the development of a valid measure of youth resilience: The International Resilience Project

While the concept of “resilience” has become increasingly well-known in the western world, the construct has received very little attention outside of western books and journals or in the writing of international aid organizations (see Luthar, 2003; International Federation of Red Cross and Red Crescent Societies, 2004). In an effort to understand what positive development under stress means to populations of youth growing up in both western and non-western contexts, an international team of researchers from 14 communities in eleven countries worked collaboratively to develop a set of measures and research protocols to investigate resilience as a culturally determined construct. This social-ecological interpretation of resilience has guided the validation of a transactional, culturally-variant definition of resilience as:

In the context of exposure to significant adversity, whether psychological, environmental, or both, resilience is both the capacity of individuals to navigate their way to health-sustaining resources, including opportunities to experience feelings of well-being, and a condition of the individual’s family, community and culture to provide these health resources and experiences in culturally meaningful ways. (Ungar, 2008, p.225)

Following Kagitçibasi’s (2007) advice, the project has included both Minority World researchers, those from western nations who are numerically outnumbered globally, but whose voices have discursive power through their over-representation in the production of knowledge, and the more numerous non-western and aboriginal people

who occupy the Majority World. Together, the team which comprises more than 35 members, consulted with local advisory committees of key stakeholders in each community to identify themes congruent with young people's positive development under stress. Through electronic communication and then face-to-face meetings in 2003 and 2005, a 58-item questionnaire was developed with items generated around the globe. The resulting Child and Youth Resilience Measure (CYRM) produced a number of variable factor structures globally following the concurrent administration of the measure to 1451 youth in all 14 sites.

Previous efforts to develop a resilience measure have concentrated on Minority World populations, though a few efforts, such as those by Hjemdal and his team, have also included Majority world samples such as Brazilian youth (Friborg, Barlaug, Martinussen, Rosenvinge & Hjemdal, 2005; Hjemdal, 2007). Other efforts such as that by Donnon and Hammond (2007) have been within a single country (Canada) but examined patterns among both aboriginal and non-aboriginal youth. Seeking to understand within country variation is also evident in the original ground-breaking work of Emmy Werner and Ruth Smith (2001) whose Kuaii study began in the late 1950s and continues today, demonstrating patterns of risk and positive development among Hawaiians. Similarly, McCubbin and his colleagues (McCubbin, Fleming, Thompson, Neitman, Elver & Savas, 1998) have been documenting patterns of resilience among visible minorities in the United States for a number of years, noting similarities and unique patterns of coping among people who thrive in diverse social ecologies, often ones where the risks include racial and economic prejudice, immigration, and a lack of opportunities for education or employment. What is rare among these studies is the indigenization of the quantitative

measures used. In almost all these cases, the measures of resilience that were used reflect Minority World understandings of positive adaptation, such as school engagement (which excludes working children, or children in communities where education is inaccessible), hobbies (which excludes children in subsistence economies without “free” time) and positive contact with parents (which excludes the parentified children who have taken over family responsibilities when parents have died as the result of disease or war). In atypical cases, there may be aspects of resilience and coping that are invisible to outsiders who bring with them preconceptions of what is and is not adaptive coping. In such cases, contextually relevant coping may bring children important resources such as self-esteem, via unconventional paths. Elsewhere, Ungar (2004) has termed these patterns of localized successful development “hidden resilience”. As Chan, Carlson, Trickett and Earls (2003) suggest, different desirable characteristics may become more or less important in different social ecologies, depending on what the child is called upon to do.

Characteristics that are desirable are also, across cultures, malleable to temporal aspects of community change. For example, in a twice repeated study of shyness among high school students in China’s rural and urban environments, Chen and his colleagues (Chen, DeSouza, Chen & Wang, 2006) found that over a decade of enormous cultural change and economic growth shyness among children changed from being a desirable quality, and protective, to one that was discouraged and a sign of vulnerability.

A culturally sensitive measure of resilience

The 58-item version of the CYRM (it has subsequently been shortened to a 28-item version, now being validated—see Ungar, 2008) was a comprehensive effort to contrast in one study Minority and Majority World constructions of resilience. Building

on work by van de Vijver and Leung (1997), we sought to investigate the between-site factorial invariance of a set of standardized, collectively generated questions. By consulting widely on the construction of the measure, all questions demonstrated good face validity from the start. They included questions at multiple ecological levels, following Bronfenbrenner's multi-tier typology. Microsystem questions focused on personal qualities like humour and perservance: "Do you strive to finish what you start", "Do people think you are fun to be with?" Mesosystem questions asked about relationships: "Do you cooperate with people around you?", "Do you feel supported by your friends?" At the exosystem, aspects of community were the focus of inquiry: "Do you participate in organized religious activities?", "Do you have opportunities to show others that you are becoming an adult?" At the macrosystem level questions focused on culture, values and customs: "Do you enjoy your family's traditions?", "Do you think it is important to serve your community?" All questions were scored in the same direction on a five-point Likert scale (from 1=Not at all to 5=A lot) to facilitate ease of comprehension, administration and translation.

A minimum of 60 youth were sampled in each of the 14 partner communities: Sheshatshiu, an Aboriginal Innu community in Northern Canada; Hong Kong, China; East Jerusalem and Gaza, Palestine; Tel Aviv, Israel; Medellín, Colombia; Moscow, Russia; Imphal, India; Tampa, Florida; Serekunda, the Gambia; Njoro, Tanzania; Cape Town, South Africa; Halifax, Canada; and Winnipeg, Canada (two sites, one with urban Aboriginal youth, the other with non-Aboriginal youth in residential care)(See Table 1). A purposeful convenience sample of young people were invited to participate, all of whom had been exposed to significant amounts of risk as judged by a local committee of

experts. While risk factors changed between sites, all youth had to report being exposed to at least three significant risks (such as poverty, violence, family dislocation, parental mental illness, etc.). For complete details of the methodology, please see Ungar, Lee, Callaghan & Boothroyd (2005) and Ungar & Liebenberg (2005).

Findings

With the exception of five of the 58 items, all produced a mean score between 3.0 and 3.99, and standard deviations ranged from 0.98 to 1.54, suggesting enough variability for inclusion in a factor analysis (see Table Two).

Adequate reliability was found for the nested ecological model using all 58 questions: micro (.84), meso (.66), community (.79) and culture (.71) (see Table Three). Subsequent analyses attempted to identify a valid four factor solution that could account for this ecological model. However, even after rotation, factor loadings did not support a single model of interpretation for all 1451 youth. This result was not unexpected (van de Vijver & Leung, 1997).

To understand better the nature of the youth's response patterns (which we hypothesized reflect their local experiences of resilience) we next conducted exploratory factor analyses to test for reproduction of rational item groupings and internal consistency. This technique can establish the instrument's level of measurement unit equivalence (van de Vijver & Leung, 1997) and identify cultural variation. Four distinct factor structures emerged based on the total variance explained, rotation sums of squared loading and the corresponding scree plots. Group one include all male and female participants from Minority World sites such as Halifax, Canada and Tampa, USA. Most interesting was that these youth, upon which Bronfenbrenner's work was also based,

separated items as expected into standard hierarchies congruent with an ecological theory. Among Majority World youth, however, the model did not produce a stable factor structure. Gender helped to refine analysis. Separating the sample into boys and girls, we found that Majority World girls produced a seven-factor stable factor structure. It would seem that girls in different countries had more in common with each other than the young men living next to them. Among the males in Majority World contexts, however, further refinement was necessary. Our data showed different factor structures could account for those living in communities with relatively high social cohesion (those with a common purpose and a degree of trust) such as Russia and Hong Kong, and those male youth living in low social cohesion communities of the developing world, such as South Africa and Colombia (where violence and community conditions create low levels of social capital)(see Table Four).

Discussion

The low factorial invariance of our sample provides a cautionary note to investigators of resilience. If the goal of research is to document aspects of adaptive coping in culturally diverse contexts, then it is unlikely that measures can be exported from Minority World contexts and a reliable factor structure found. High factorial invariance is more likely. Based on the findings presented above, we accept that the original 58 questions of the CYRM have relevance to all populations tested while also suggesting that the way youth interpret items, the meaning and importance of each concept, and the interaction between resilience factors is not a universally stable pattern. In this regard the data highlights the challenge of accounting for both *homogeneity* and *heterogeneity* in the psychological sciences when investigators move beyond assumptions

of universalism. Aspects of development are here understood as occurring in particular family and community contexts, themselves components of broader social ecologies (Kagitçibasi, 2007). The hierarchal structure of Bronfenbrenner's ecological model is disrupted by the findings from our study. While the model reflects an orderly nosology of resilient antecedents among western youth, it does not account well for the way aspects of development cluster in different cultures and contexts. Even this, however, may not be a sufficiently good account of our findings. After all, the youth in our sample were shown during the qualitative component of the research (reported in Ungar, Brown, Liebenberg et al., 2007) to be experiencing the homogenizing effects of globalization in ways different from the adult members of the research team. There is therefore another layer of interpretation required. Though each of the 58 items chosen were agreed to by local committees (and judging by the young people's responses, were of relevance to them) to be a factor associated with positive development, we cannot overlook the tendency towards global cultural unification.

All of this suggests qualified support for the hypothesis that there are global aspects of resilience across culturally diverse populations, but unique patterns to how resilience is understood and expressed locally. Measures of resilience will need to account for both the homogeneity this presupposes as well as the heterogeneity that results from sensitivity to measurement design and administration when cultural differences are accounted for. Future administrations of the CYRM will need to investigate further whether there are other valid factor structures among populations of young people in countries that were not included in this study. Particularly noteworthy in this sample is the absence of many European cultures and marginalized groups within

different European countries such as the Roma. In these contexts, we speculate that the CYRM may have the capacity to measure positive coping, or resilience, in ways that fit with an emerging understanding of adaptation and coping in these countries (see for example, Prokopčáková, 2004; Ruiselová and Prokopcakova, 2005). Benchmarks of success, such as self-mastery in demanding life situations may prove more relevant to some populations than those typically surveyed by researchers in the Minority World. A next wave of resilience research is needed to investigate indigenous concepts of coping among marginalized populations outside the western world in order to discover contextually dependent and unique coping processes.

Conclusion

On the basis of these preliminary results, the CYRM has demonstrated initial construct validity and offers the promise of a cross-cultural measure of the resources available to youth in different cultures that are associated with resilience. Importantly, however, while results support the theory-based, ecologically-nested model originally identified by members of the IRP, they simultaneously suggests the need for additional explanatory models when investigating the lives of children across cultures. When the original 58 items are sorted according to a traditional Minority World notions of social ecology, the structure has reliability (as indicated by the aforementioned alpha values) but no validity (as indicated by results from the factor analysis). This lack of universal validity for the ecological model, and validity for three other factor structures to account for the data, indicates that health resources related to resilience are perceived, valued and employed in different ways by different youth populations. Thus, the CYRM appears to be able to account for both commonalities and uniqueness among the populations

included in this study. Further study is now required to apply the CYRM in other contexts and to demonstrate its concurrent validity with local measures that can capture both risk and prosociality among youth populations under stress in environments where the construct of resilience has yet to be investigated.

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Table One: Participants by site, age and gender

Site	Participants		Male participants		Female participants		Age	
	N	%	N	%	N	%	Mean	SD
The Gambia	81	5.6	31	4.5	50	6.6	20	2.35
Russia	82	5.7	43	6.2	39	5.2	18	2.97
Tanzania	75	5.2	28	4	47	6.2	15	1.36
India	60	4.1	32	4.6	28	3.7	15	2.06
Northern Canada*	60	4.1	30	4.3	30	4	16	1.87
South Africa	60	4.1	29	4.2	29	3.8	19	1.86
Palestine	122	8.4	81	11.7	41	5.4	16	2.34
Southern Canada**	124	8.5	81	11.7	43	5.7	16	2.54
China	344	23.7	188	27.1	155	20.6	13	0.81
Southern USA	110	7.6	0	0	110	14.6	19	0.99
Israel	251	17.3	110	15.9	141	18.7	15	1.42
Colombia	82	5.7	41	5.9	41	5.4	17	1.98
Total	1451	100	694	47.9	754	52.1	16	2.62

*Sheshatshiu

**Consisting of three sites, Halifax and Winnipeg (Aboriginal and non-Aboriginal)

Table Three: Cronbach's alpha values for ecologically nested model

Micro / .8437		Meso / .6553		Macro: Community / .7939		Macro: Culture / .7134	
CYRM question	Alpha if item deleted	CYRM question	Alpha if item deleted	CYRM question	Alpha if item deleted	CYRM question	Alpha if item deleted
1	.8412	6	.6444	4	.7936	2	.7112
3	.8354	11	.6176	10	.7801	5	.7053
4	.8397	12	.6375	21	.7847	15	.7065
7	.8343	20	.6177	27	.7857	17	.6907
8	.8389	23	.6076	32	.7844	19	.6925
9	.8387	29	.5806	35	.7843	24	.6815
13	.8367	34	.6275	37	.7774	25	.6794
14	.8386			39	.7915	46	.6810
16	.8380			41	.7797	52	.6799
18	.8385			42	.7724	53	.6873
22	.8334			43	.7786	55	.7132
26	.8408			48	.7740	57	.7089
28	.8332			50	.7750		
30	.8376			54	.7892		
31	.8365			56	.7830		
33	.8432						
36	.8366						
38	.8330						
40	.8333						
45	.8370						
47	.8361						
49	.8356						
51	.8516						

Table Four: Thematic content of each factor by factor structure*

Factor loading	Western girls and boys	Non-western girls	Non-western boys-high social cohesion	Non-western boys-low social cohesion
1	The way I live my life reflects the values of my community (.86)	I experience self-efficacy individually and in community relationships (.82)	I have a respected place in my community (.77)	My health and social needs get met (.70)
2	My future is mine to create alone and with the help of others (.84)	Solutions to life's challenges are rooted in relationships (.72)	I experience self-efficacy (.75)	I am confident (.91)
3	I am socially mature (.80)	I have my emotional and instrumental needs met (.77)	I have emotional maturity (.56)	I can express myself in ways I value and others value about me (.92)
4	I do things adults do (.78)	My life philosophy is rooted in my culture (.75)	I feel responsible for my community (.61)	I have a life-philosophy (.82)
5	I experience intergenerational respect (.79)	I experience intergenerational expectations (.70)	I live my spirituality (.61)	I am attached to my local culture (.73)
6	I have values that guide my life, reflecting the social institutions around me (.68)	I show adherence to my local culture (.63)	I am socially competent (.55)	I am responsible for myself and others (.99)
7	I experience social acceptance of my peers (.52)	I balance dependence and independence with my family (.56)	I behave like an adult (.43)	I have cultural and familial roots (.67)
8			I have a life philosophy (.48)	My community functions well (.34)
9			I have self-worth (-.23)	I am emotionally mature (.35)

* With Cronbach's alpha