



Relationships with Others in One's Community

The Science of Resilience

✉ rrc@dal.ca

🌐 www.resilienceresearch.org

© R2 RESILIENCE



RRC - Evaluation
and Training Institute

Table of Contents

Definition	1
Community Capitals.....	1
Relationship to Resilience	4
Community as a platform to share information	6
Community networks after trauma	7
Neighbourhood supports.....	8
Community collaboration in building resilience	8
Churches and places of worship	9
Interventions.....	10
The LINC Community Resilience Model.....	12
Community gardens as a path to resilience.....	14
Assessment	14
References	17
Appendix A: Four Social Capital (SC) Dimension Scales.....	21
Appendix B: The Conjoint Community Resiliency Assessment Measure.....	23
Appendix C: A Reflective Thrive-oriented Community Resilience Scale.....	24

Definition

Community, defined as a group of individuals that identify one another by shared interests and culture and activities, influences individuals' capacity to recover after negative events (Ungar, 2011). Community members develop resilience in changing environment by actively engaging resources available in the community. Community capacity is the ability to engage in collective actions to address various issues using existing human capital, organizational resources, and social capital in the community. Community capacity is related to community resilience. Community resilience focuses the capacity of the community in facing changes (Magis, 2008).

Ungar (2011) defines community resilience as "social capital, physical infrastructure, and culturally embedded patterns of interdependence that give it the potential to recover from dramatic change, sustain its adaptability, and support new growth that integrates the lessons learned during a time of crisis" (p. 1742). It is a dynamic complex social world that is based on geography or mutual interest (Murray & Zautra, 2012). Bonanno et al., (2015) argue that community is not bound to a specific geographic location anymore due to advances in communication and transportation technology, and that the community is linked by social ties, common perspectives, or joint action. Some indicators of community resilience are members' understanding of existing risks in the community, the presence of counselling services, the absence of psychopathologies in the community, members' health and wellness, and members' quality of life (Cutter et al., 2008).

Community Capitals

Individuals' resilience is bonded to the resilience of their community (Ungar, 2011). It is influenced by social contextual factors, such as previous experiences coping with challenges with or without help from other community members, social ties, and how responsive one's community is to their needs (Murray & Zautra, 2012). The more resources and capital the community have, the better individuals will fare in facing stressful situations. However, the resources provided by the community are only useful if they are aligned with the person's needs and values (Ungar, 2011).

Community capitals are community resources that are invested and used to address mutual objectives. The resources invested increases community's ability when facing changes (Magis, 2008). Resources in the community can be found in five forms (Magis, 2008; Ungar, 2011):

- Natural capital is "made up of resources and ecosystem services from the natural world" (Magis, 2008, p. 406).
- Human capital is individuals' latent or prominence attributes that are utilised to develop the community.

- Financial capital refers to the financial resources available in the community for business and social development in the community.
- Physical capital serves as infrastructure for the community to share their ways of production and living, to get services and supports they need, and as a collective common space for people to interact.
- Social capital refers to community resources in cultural and contextual forms (social support, shared values, supports for daily tasks) that are necessary for sustainability and individual resilience when facing adversities.

Physical capital is a built environment that can be found in the form of residential housing, public buildings, business/industry, shelters, and lifelines (e.g., hospital, schools, fire and police stations, electricity, water, telephone, etc.). These facilities are critical for the proper functioning of a community and their resources (Mayunga, 2007). Social capital provides at least three kinds of supports: sense of community, instrumental support, and informational support. Social capital also provides some emotional support when individuals have good relationships with other community members (Perkins & Long, 2002).

Physical, psychosocial, and sociocultural supplies obtained through cultural development and upbringing are important for individuals' emotional and cognitive development. Psychosocial supplies are important for emotional and cognitive development while sociocultural supplies give individuals rewards and security. People with adequate supplies at hand have an advantage when dealing with adversities (Sonn & Fisher, 1998).

According to Putnam (2000), trust and engagements are underlying factors of social capital. While Perkins and Long (2002) claim the two components of social capital are sense of community and collective efficacy (Perkins & Long, 2002). In a community with a substantial social capital, engagement creates a thick network that facilitates the community's coordination and communication to solve common problems. This network fosters reciprocity and social trust, which broaden the members' sense of self and their participation for collective benefits (Putnam, 2000). Perkins and Long (2002) additionally define social capital in four components: "(1) trust in one's neighbours (SOC) and (2) the efficacy of organized collective action (empowerment), (3) informal neighbouring behaviour, and (4) formal participation in community organizations" (p. 294). This definition supplements the core components with ideas of formal (tenant association, faith-based community services, school-based organizations, etc.) and informal community trust and formal-informal pro-social community behaviour.

Social trust comes from two sources: norms of reciprocity and civic engagement. Reciprocity can be specific (involving an exchange of items of similar or equivalent values) or generalized (involving a continuous relationship of balanced exchanges). In generalized reciprocity, the expectation that the favour will be repaid in the future works in restraining opportunism. The combination of short-term altruism and long-term interest balances

individual's interest and social solidarity. Civic engagement facilitates the flow of communication and information, which in turn increases mutual trust. Successful engagement action also increases the possibility of future actions (Bridger & Luloff, 2001).

Social capital is separated into three main types: bonding, bridging, and linking (Magis, 2008; Aldrich, 2012). Bonding social capital is the connection between individuals who are emotionally close, usually similar in characteristics, attitudes, and demographics (Meyer & Aldrich, 2015). Bonding social capital intensifies the ties between similar individual but exacerbates the difference with other groups (Aldrich, 2012). Bridging social capital describes loosely connected acquaintances who are from different demographic but provide novel information and resources that help individuals in the community. Some examples of bridging social capital are parents-teacher association, interest clubs, and religious groups (Aldrich & Meyer, 2015). In adversities, strong bonding social capital with weak bridging social capital may cause the community to shift the blame and attack other people from outside their group (Aldrich, 2012). Linking social capital is the network and trust that connect individuals with the people in power (Aldrich & Meyer, 2015).

Social capital can be measured by community involvement in non-profit organizations, voluntary associations, religious organizations, and clubs (Mayunga, 2007). Nowadays, conventional civic organizations are replaced by tertiary organizations (where people join the same group and share the same interests but are unaware of each other's existence), non-profit organizations, and small support groups. Small support groups play an important role in social connectedness and are a form of social capital. However, these small groups are not as effective in fostering community resilience because of the weak social contract that binds the members (Putnam, 2000).

One aspect of informal social capital is neighbouring (Putnam, 2000). Buonfino and Hilder (2006) define neighbouring as "social interaction between people living in close residential proximity" (p. 12). A positive neighbouring (neighbourliness) is achieved by maintaining cooperation, helpfulness, and friendliness without being intrusive nor distanced (Buonfino & Hilder, 2006). Although neighbouring and neighbourliness have been decreasing for a while (Buonfino & Hilder, 2006), Wang et al., (2016) argue that neighbouring still exists in daily life. Neighbourhoods with shared space and facilities have more frequent social interactions compared to the ones with standalone houses. However, given the opportunities, all spectrum of the society are still willing to interact locally.

Having a sense of community is an important factor for informal neighbouring and participating in organized actions (Perkins & Long, 2002). Even superficial connections with people in the neighbourhood (nodding to the neighbours, helping to take parcels, etc.) help in building stronger bonds and increasing general well-being (Forrest & Kearn, 2001). A group of residents needs to have a sense of community to start working together to solve common problems, which over time, can increase their self- and collective efficacy. This, in turn, increases their participation in community activities. Sense of community is linked to

community satisfaction, collective efficacy, neighbouring, communitarianism and social control. Individuals with a higher sense of community and who live in a neighbourhood with a higher sense of community have better collective efficacy and participate more in neighbouring and community activities (Perkins & Long, 2002).

Collective efficacy (trust in the effectiveness of the community) is related to the concept of empowerment. Empowerment leads to more participation in community actions, which, in turn, builds further empowerment. Individual's coping capacity is influenced by mutual assistance and information sharing in the neighbourhood. Participating in neighbourhood activities increase individuals' quality of life (Perkins & Long, 2002).

Place attachment, or emotional bonding to a particular socio-physical environment, is integral to individual and community identity by providing a source of stability (Perkins & Long, 2002). Place attachment also increases well-being, especially in older people (Lager et al., 2012). It brings people together to address social and environmental issues, as well as preserve places and generate business opportunities in the area (Perkins & Long, 2002).

Institutional services with trained professionals also works as social capital for capacity building (Ungar, 2011). Stanton-Salazar (2011) defines institutional support as "resources, opportunities, privileges, and services which are highly valued, yet differentially allocated within any organization or society that is invested in social inequality and in hierarchical forms of control and organization" (p. 1075-1076). Although the formal system is a weaker support compared to less formal networks, the system works in sustaining individuals when other networks are unavailable (Ungar, 2011). Through this network, people are able to receive social and institutional supports (e.g., access to knowledge, advice, guidance, mentoring, and training) which empowers them to reach important life goals (Stanton-Salazar, 2011).

Relationship to Resilience

Social structures and processes influence individuals' well-being by providing individuals with resources (Murray & Zautra, 2012). These resources, which are intended to promote everyone's well-being, may be more relevant for some groups of people (Ungar, 2011). Murray and Zautra (2012) found that for individuals facing adversities, recovery happens through social process and is more significantly related to their harmonious relation with the family and community than to their thoughts, emotions, and aspiration (Murray & Zautra, 2012). Isolated individuals are less likely to be found and rescued in disasters, to seek medical help, evacuate, and receive help from other people (Aldrich & Meyer, 2015).

Various researches have investigated the importance of community membership in facing adversities. Adversities, such as disasters, put communities at risks and influence relationships within and across social units. Social supports and connections help people cope with the situation and improve their resilience (Ungar, 2011; Bonanno et al., 2010). The

networks are built by common purposes, in either a public space or more formal programming designed to connect individuals (Ungar, 2011). The supports may come in the form of reassurance, help in daily tasks (child-care, sheltering), information about how to do something, or financial resources (Walsh, 2007; Bonanno et al., 2010; Taylor et al., 2012; Aldrich & Meyer, 2015). However, in some cases the supports may vary because of a change in life circumstances or because of disaster itself (Bonanno et al., 2010).

Bonanno et al., (2010) found that collective solidarity in the community increases after disasters. People showed enhanced solidarity, a sense of unity, an overall sense of altruism, and reported less community conflict. Solidarity and community cohesion act as therapeutic features that mitigate psychological impacts of disaster and even contribute to community integration and growth beyond the pre-disaster level. Community collaboration and activities reduce the psychological impact of the events, build people's capacity for future events, and can even prevent disasters from happening again (Bonanno et al., 2010).

The first social network available for individuals in disasters is bonding social capital, that is, the people they are already close with. Bonding social capital increases the opportunity to receive warnings and immediate reliefs in disasters. A thick bonding social capital leads to greater trust and therefore, quicker recovery from disasters. A community with higher social networks, norms, participation, and trust has better awareness for disaster preparedness and a better response, adaptation, and recovery after disasters (Aldrich & Meyer, 2015).

Individuals who experienced maltreatment and social deprivation in their childhood have disadvantages that may result in lack of education, lower rate of partnership, lower social status and integration, less income, and higher number of unemployment (Beutel et al., 2017). For people with childhood traumas, social supports appear to work as a protective factor for a better long-term outcome. Supports and care have been linked to self-reliance, better adaptive emotional regulation, and better mental health in adulthood.

Social inclusion is critical to older adults' ability to recover from adversities. Strong social supports promote resilience and reduce mental illness and physical dysfunction (MacLeod et al., 2016). Social supports from their environment help older adults to face adversities, such as illness, death or illness of a close person, victimizations, and changing residence. Supportive relationships with professionals, community bonding, and supports from family and friends enhances their ability to adapt to circumstances created by adversities (van Kessel, 2013).

Kaniasty (2012) found that people who received social support and help from the community following a disaster have better psychological well-being. Individuals who are connected to altruistic communities have better feelings of connectedness, sense of community, and higher trust. On the other hand, individuals who experience disappointment for the aid they received and to their community have lower psychological well-being and slower psychological healing.

Among US veterans, individuals with lower psychological distress tend to have better emotional stability, social connectedness, protective psychosocial characteristics, and positive perceptions of how the military job affected their lives. Individuals with secure attachment style, social support, life purpose and who integrate to their community have less psychological distress and better resilience in enduring traumas in their lives (Pietrzak & Cook, 2013).

Social support is also important for nurses' personal resilience. Their workplace conditions often involve interpersonal difficulties (feeling bullied or oppressed, blamed, and scapegoated), which can create emotional burdens. Building positive professional relationships and networks as their support system is crucial, especially with people outside their immediate work area. The networks may be able to give them guidance and support when needed and validation when tensions are high within their own workplace. Professional networks also provide mutual mentoring and nurturing relationships with other professionals (Jackson et al., 2007).

In terms of institutional capacity, institutional agents facilitate the development of coping strategies by building people's problem-solving capacity, networking skills, help-seeking attitude, and other positive behaviours to overcome stressful situations. Institutional agents' experience helps to locate marginalized individuals and youths. These agents provide institutional supports toward empowerment by building critical consciousness, that individuals can transform themselves and make positive impacts to their community and their society (Stanton-Salazar, 2011).

Community as a platform to share information

Social support provides information needed to cope and feel connected. For refugees, social networks help them to access the resources they need and to maintain a feeling of connectedness, which is important for their well-being. The sources of social support can be family, friends, organizations, and social media platforms. Social networks help refugees to get resources they need, find a job, gain knowledge of how the new society works, and improve their language skills. Being far from their roots, many refugees use social media to connect with families and friends. Social media also helps them to seek health aid and information regarding health promotion and health aids. They reach out to health practitioners that can help them navigate in the new system and infrastructures (Udwan et al., 2020).

Taylor et al. (2012) explores how the community connected after cyclone Yasi in 2011. People shared and sought information from their community, mostly via social media. They gave and sought general information regarding what was happening or specific information about something they needed. Their networks also connected them with people outside their community who offered help, support, and sympathy. These activities improved social capital and promoted safety, connectedness, and self-and group efficacy (Taylor et al., 2012).

Social media became the new forum for community activism and collective intelligence after the 2010 Haiti earthquake. By contributing to social media, affected people built their

resilience by getting their dignity, control, and responsibility back. It was also used as a place to share and get information, comfort, support, and donations (Keim & Noji, 2010). These findings show how social media and existing technology provide informal social networks and help with resource identification for coping, well-being, and psychological support during disasters (Morton & Lurie, 2013).

Community networks after trauma

Community networks play an important role in resilience after major trauma and loss (Walsh, 2007). Community works as a resilience factor by giving people a sense of belonging (e.g. from participating in community organizations, social services, protocols, and ceremonies), bonding people with shared values and interpersonal belonging, giving people a sense of connectedness, and building collective efficacy (Meredith et al., 2011). It also provides extended social systems (health care providers, congregational support, and neighbourhood or community organizations), emotional and practical supports, and serves as a place to share individuals' experiences, feelings, and hopes (Walsh, 2007). Individuals without community attachment may feel isolated and develop helplessness that increases their vulnerability (Paton, Millar, & Johnston, 2001).

Iacoviello & Charney (2014) found that active efforts to seek support from others and establish and maintain social network increased trauma survivors' resilience. Very few individuals believed that they can face the trauma by themselves and resilient individuals very often acknowledged the support they got. Knowing that they have help around them enables individuals with trauma to act and confront their situations. Having networks also helps individuals to think more positively of themselves and improves their adaptive coping (Iacoviello & Charney, 2014).

For women who experienced trauma from intimate partner violence, the main factor that improves their resilience is social support. Women with strong social ties are better at mobilizing the resources, such as finding money in an emergency situation. They have better supports and therefore are also more inclined to report the abuse. Women with weak social network have more difficulties seeking help, leaving their situation, and reporting the abuse (Machisa et al., 2018).

Karoly and Ruehlman (2006) found that social support and lower levels of social hindrance (e.g. insensitivity and impatience) help people in chronic pain to cope and to be more resilient. Social support is also important for disabled children and their families. Disabled children and their families who are excluded from their communities and activities are at risk of isolation. For disabled children, taking a risk to participate in their communities provides them with a sense of power, confidence, and a feeling control in their life (Runswick-Cole & Goodley, 2013).

Neighbourhood supports

Neighbourhood plays an important role in providing social support. Community life is an integral part of the life of people in Columbia and other Latin Americans after a period of dictatorship. Building relations in their neighbourhood by socializing and helping each other is crucial. Social networks in the community provide people living in poverty with emotional, moral, social, and economic support. Friendship helps them to face harsh life conditions and persecution by giving them strength, hope and the supports needed to go on. These relationships are based on trust, reciprocity, and solidarity. For individuals living in extreme poverty, their survival depends on these relationships, alliances, and the sharing of resources (Hernández, 2002).

Wang et al., (2016) found that migrant residents in China are more likely to interact with their neighbours. Migrants are aware that networking with the locals will increase their chance for better integration and survival in the new place. However, existing stigma associated to migrants (higher crime rate, poor education, bad media coverage), as well as different behaviours and lifestyle patterns discourage the locals from interact with migrants.

Community collaboration in building resilience

Crisis pushes community members to step forward and fill many roles in the community, and, in doing so, helps them gain a sense of empowerment and self-efficacy. Community collaboration in a crisis gives people meaning, life lessons, and help them to deal with the experience, and therefore promotes their resilience (Walsh, 2007).

Murray and Zautra (2012) explore on how Sudanese refugees that resettled in Australia rebuilt their social relations and community as part of their recovery process. The community established a gathering place and elected a leader to address the needs of the community as a whole. They actively expanded the network, and this extensive network helps members to develop their collective identity. When a member faced a challenge, such as negative public comments, the community responded by writing petitions, letters and statements and drew supports from the networks that they had made. The community was able to help the member sustain their sense of agency and self-respect, in ways that people could not do individually (Murray & Zautra, 2012).

However, supports in the community may be deteriorated in disasters. Disasters reduce the number of people in the community (through death, injury, relocation) and increase people's expectation of the supports. Even with the increase of external support, sometimes community supports still cannot meet the needs in disasters aftermath, which creates disappointment, concerns, and frustrations (Bonanno et al., 2010).

A sense of community has also found to be diminished after technological/human-induced disasters. The event may destroy community dynamic and people's sense of community (Bonanno et al., 2010). The Deepwater Horizon oil spill created "corrosive

communities”, in which social relationships and social groups broke down and people lost trust in social institutions. Such a situation exacerbates psychological distress that already exists in people impacted by the oil spill (Morris et al., 2013). Disaster trauma also decreases individuals’ beliefs in the efficacy of mutual helping and material losses diminish community cohesions after disasters. These processes cause social bitterness and social disaffection (Kaniasty, 2012). Diminishing of community confidence explains why revitalization projects and urban policies fail to can improve the neighbourhood (Perkins & Long, 2002).

Churches and places of worship

Lack of bridging social capital can result in less resilience communities. Bridging social capital provides information and opportunities that individuals might not get through bonding social capital. Ties to social organizations provide resources through institutional channels (Aldrich & Meyer, 2015). Various early prevention and intervention programs that focus on improving bridging social capital through institutions (e.g., safety in neighbourhood, support services, recreational facilities and programs) work to promote resilience in children and youths (Alvord & Grados, 2005). The availability of supports outside the family serve as protective factors in children’s resilience. Children and youths usually find their support group through clubs and teams. The support can be in the form of friends and prosocial adults (coaches, mentors, teachers). These people become their positive role models outside their family (Alvord & Grados, 2005). Religious and spiritual organizations are another source of social support within the community (Alvord & Grados, 2005).

Resilience is significantly shaped by people’s prior social ecologies. Refugees from Burundi and Liberia go to African church to share information, to talk about their experiences and challenges, for support, and for recreation. They build close relationship with strangers and help each other to adapt and share responsibilities. Connections with church congregants, agency workers, and volunteers provide these refugees with short-term financial, instrumental, and emotional supports. The families also share childcare with others who live nearby and, through this, they create social network (Weine et al., 2011). Church groups give oppressed individuals a sense of belonging by providing them with a space to shared and experience solidarity. A sense of identity and group affiliation are important for people who have experienced social oppression (Sonn & Fisher, 1998).

Local faith groups play an important role for people affected by disasters. Church and other faith groups provide a space for people to engage in their cultural practices, lower the impact of cultural suppression and values, and to develop new cultures (Sonn & Fisher, 1998). Places of worship also work as a shelter in disasters. The institutions provide logistics and instrumental supports and bridge agencies and donations to people who are in need. Local faith leaders provide people with reassurance, spiritual care, and counselling that helps individuals and the community deal with the aftermath of disasters (Adisaputri, Le De, 2018).

Active participation in a church group can also be useful for female survivors of childhood abuse. There, they can find support networks, friendships, role models, mentors, and confidants. Involving the individual in group activities builds their self-esteem and gives them a sense of meaning and control of their life (Valentine & Feinauer, 1993).

Interventions

By intervening on a systemic level, practitioners and researchers can improve the quality of community and individual resilience. People are influenced by other people around them, their environment, culture, values, and beliefs (Murray & Zautra, 2012). The more community helps individuals negotiate and navigate for the resources they need, the more resilience the individuals and the community will be (Ungar, 2011). Therefore, multifaceted interventions that target both individual and community is important in each dimension of resilience (Murray & Zautra, 2012). Table 1 provide examples for potential intervention targets in individuals and community level.

Ungar (2011) proposed that to deliver services in a complex shared environment, institutional services should engage multiple providers and informal supports to reach out to the wider marginalized group and to provide services that are culturally relevant to the group's values and views. The services need to be evidence-based, such as from indigenous knowledge, practice-based, or evidence-based practice. Institutional agents should listen and negotiate with the users to define which services and facilities are needed and are useful. The services also need to be in a continuous cycle with formal and informal supports available as needed and have accessible co-locations (Ungar, 2011).

Table 1. Public policy targets for resilience (From Murray and Zautra, 2012)

	Individual resilience	Collective resilience
Recovery from:	Chronic pain, bereavement, job loss, economic hardship	Inequities in safety-nets, disincentives for proper diet, nutrition, and exercise
Sustainability of:	Agency, choice, creativity, self-efficacy, vitality	Participative democracy, collaboration, shared identity
Growth in:	Meaning in life, wisdom, maturity, sense of purpose	Common purpose, empowerment, collective wisdom, leadership

There are five aspects that influence how people assess their community resources in a crisis:

- Members' characteristics
- The quality of the resources and the opportunity available for them
- The navigation process to access the resources

- The process to obtain meaningful resources for community members from the institution's or government's gatekeepers
- The cultural lens used to assess the resources they need (Ungar, 2011).

Therefore, to provide effective supports, institutional agents need: (a) to build genuine supportive relationships based on interpersonal trust, solidarity and shared meaning with the beneficiaries; (b) to counter the stratification system and therefore construct interpersonal trust with the beneficiaries; (c) to keep the efforts of embedding marginalized people in the support systems (Stanton-Salazar, 2011). Table 2 explains forms of institutional supports and the agents that play key roles in the process.

Table 2. Forms of "Institutional Support" and Kinds of Institutional Agents (Modified from: Stanton-Salazar, 2011)

Direct Support
<i>The provision of personal and positional resources</i> Agent: resource agent Positional resources linked to a hierarchically arranged network, institution, or system. Personal resources are individuals who can transmit the resources without needing authorization
<i>Transmission of key funds of knowledge</i> Agent: Knowledge agent Providing information about regulations and available resources and supports provided by the institution
<i>Advocacy</i> Agent: Advocate Aims to protect individuals or promote their interests and rights
<i>Network development</i> Providing supports and trainings to improve help-seeking behaviour and networking skills
Integrative support
<i>Integrating actions</i> Agent: Integrative agent Coordinating social integration in certain networks and venues. These socialization experiences empower individuals by bridging and brokering the networks and association needed for help-seeking and reciprocal exchanges
<i>Guided cultural exposure</i> Agent: cultural guide Empowering socialization process by teaching individuals to negotiate and participate in sociocultural worlds
System developer
<i>Program development</i> Agent: program developer Developing programs that embed individuals in a system of agents, resources, and opportunities

<p><i>Lobbying</i> Agent: Lobbyist Lobbying an administrative or organization body for resources</p>
<p><i>Political action/advocacy</i> Agent: political advocate Advocating for social policies that aimed at providing resources and increase social justice</p>
<p>System linkage & networking support</p>
<p><i>Recruiting</i> Agent: recruiter Recruiting participants into the program</p>
<p><i>Bridging</i> Agent: bridging agent Bridging individuals to key institutional agents and to key social networks. Bridging agents need to have extensive social networks, active connections, and good knowledge of available resources</p>
<p><i>Institutional brokering (as an amplification of bridging)</i> Agent: Institutional broker Bridging two or more parties in negotiating agreements and on behalf of individuals</p>
<p><i>Coordinating</i> Role: Coordinator Assessing the need of the individuals (beneficiary), coordinating the provision of needed for supports and services. Working directly with the beneficiaries and providers</p>

A tiered framework is also needed to ensure people get services they need. This framework consists of five level of intervention:

- Tier 1 provides population-based health promotion and prevention for the general population.
- Tier 2 comprises early interventions and self-management functions of people who are at risk of developing significant health problems.
- Tier 3 includes the short-term risk and crisis management programming for individuals who have been assessed as facing challenges requiring focused intervention.
- Tier 4 are the specialized care services typical of formal mental health care systems like residential services or intensive therapy.
- Tier 5 are services for individuals with particularly complex needs where very costly and prolonged intervention is required. (Ungar, 2011, p. 1746)

The LINC Community Resilience Model

In a humanitarian crisis, multisystemic approaches with community-based efforts involving local, national, and even international agencies are needed. Saul and Landau (2004) built a framework, called Linking Human System (LINC) Community Resilience Model, that identifies individual, family, and community resources to create a matrix of healing. Natural leadership in the community is encouraged, and family and community members with different

skills contribute in different ways. This approach engenders hope and people's capacity (Walsh, 2007).

The principles of this framework are (Saul & Landau, 2004, pp. 15-16):

- Ensure that we have an invitation, authority, permission, and commitment from the community.
- Engage the entire system of the community, including representation of individuals and subsystems from each cultural and ethnic group, all economic, cultural and status strata.
- Identify scripts, themes, and patterns across generations and community history.
- Maintain sensitivity to issues of culture, gender, and spirituality.
- Encourage access to all natural and ancillary resources (biopsychosocial, cultural, ecological).
- Build an effective prevention/management context by collaborating across all systems.
- Foster a balance of agency and communion across the community.
- Build on existing resources.
- Relate program needs to goals, future directions, and best interests of the community.
- Utilize resources, turn goals into realistic tasks, and those into practical projects.
- We provide the process, the community takes responsibility for the content and goals.
- Encourage Community Links (natural change agents) to become leaders in their communities.
- The more peripheral we are, the more successful are the program and the community.
- Success of the project belongs to the community.

In applying LINC framework, practitioners need to address any sense of blame, shame, and guilt resulting from the hardships and losses. This is done by helping individuals to identify available resources and by recreating the rituals, routines, and cultural environment of the community (Saul & Landau, 2004).

Some key factors in the healing process are creativity, continuity of the family, and the gathering of people. Creativity, one of the most important resources in the process of healing, helps by giving people a symbolization of rebuilding what has been destroyed. The integrity of the family increases the community's effectiveness. Allowing people to reconnect and gather gives them a sense of mutual support and normality (Saul & Landau, 2004).

In joining the community, professionals should support the systems and ensure that they are invited by the community. They must be conscious to remain respectful of the community's values and to not take over the community's natural support system. Agents from their own communities are trained as Community Links to run the forums. The Community Links are responsible for facilitating community collaboration and projects in their community and sustaining the program even after the practitioners have left (Saul & Landau, 2004).

Walsh (2007) created a program for Bosnian and Kosovar families support based on this framework. The program consisted of a 9-week multifamily group gathering located in an

accessible neighbourhood storefront. The program provided families a space to share their stories, strengths, and resources; to build networks and kinship; and to bridge cultures. They highlighted resources in their belief systems and available resources in the organizations. Facilitators from their community were trained to co-lead the group. The program was successful in building the participants' resilience.

Community gardens as a path to resilience

Okvat & Zautra (2011) examine how community gardens work as a way to foster resilience. Community gardens, or the *Earth community*, foster resilience on an individual-level, a community-level and an environmental-level. Community gardens are plots of land used for growing plants by people from different families. The spaces improve environmental well-being via direct pathways (reduce and mitigate greenhouse gas) and indirect pathways (urban lifestyle changes, education).

Okvat & Zautra (2011) found that community gardens have some cognitive and affective benefits on individual well-being. Community gardens reduce mental fatigue in children, adults, and older adults by eliciting fascination to it. People who live in greener surroundings have better attentional performance, and therefore are better in coping with life issues. The physical, leisure, and mental activities in gardening stimulate continuous cognitive learning and give people a sense of accomplishment. Greener surroundings also reduce life stress, increase life satisfaction, and improve people's mood. Leisure gardening provides people with a way to care and build connection with nature, other people, their memories, and are a way to make meaning (Okvat & Zautra, 2011).

On community level, community gardens serve as greenspaces that bring neighbours together. Working on a community garden connects people with their neighbours and improves their sense of community. Community gardens create a denser social network and connect people of different cultures. Working on community gardens engenders participations in community activities to tackle local issues, beyond the garden itself. It also creates job and training opportunities, and therefore provides economic benefits to the neighbourhood (Okvat & Zautra, 2011).

Assessment

Four Social Capital (SC) dimension scales (Perkins & Long, 2002; Appendix A)

- The scale consists of four dimensions: sense of community, collective efficacy, participation, and neighbouring.
 - The sense of community dimension consists of eight items adapted from 12-item Sense of Community index
 - The collective efficacy dimension is measured by using the mean of six items, from "not likely, somewhat likely, or very likely"

- Participation is summed from eight items, with a yes/no questions except for one item
- The neighbouring dimension is measured by using five items showing how many neighbours help in various situations

The Social Support Inventory (SSI; Timmerman et al., 2000)

- 20 item measure
- The SSI was derived from the Discrepancy scale of the Social Support Questionnaire (SSQ-D; van Sonderen, 1991).
- Four dimensions: emotional support, informative support, social companionship, and instrumental support
- The questionnaire measure global satisfaction with social support and network specific social support
- The items are scored on a 5-point scale (1) much too little support, (2) too little support, (3) enough support, (4) too much social support, and (5) much too much support.
- Items are recorded (5=1, 4=2) resulting in three global categories that can be analysed as: (1) 'much dissatisfaction with support', (2) 'dissatisfaction with support' and (3) 'satisfaction with support'

Provisions of Social Support Scale (Turner & Marino, 1994)

- The items measure respondents' evaluations of the availability of emotional and information supports from three sources: family (husband/wife/partner; 6 items), friends (8 items), relatives (8 items). A separate three-item scale is used to assess co-worker support
- All items are scored in 5-point scale: 1 (*not true*), 2 (*slightly true*), 3 (*somewhat true*), 4 (*very true*), 5 (*extremely true*). Greater scores indicate greater support.

The Conjoint Community Resilience Assessment Measure (CCRAM; Leykin et al., 2013; Appendix B)

- Measures the complex multidimensional concept of community resilience. The scale may be used to assist decision makers in assessing community capacities to withstand disruptions.
- Originally a five-factor model with 21 items that was reduced into a 10-item brief instrument (CCRAM10).
- The five factors analysed are leadership, collective efficacy, preparedness, place attachment, and social trust.
- The items are rate on a 5-point Likert scale (1 = Disagree to 5 = Strongly Agree).

A Reflective Thrive-oriented Community Resilience Scale (Lindberg & Swearingen, 2020; Appendix C)

- A brief scale comprised of general and context-specific items that measure the consistency of community resilience in thriving in the face of adversities

- The scale measures *community resilience* (six items), *individual resilience* (five items), and *cohesion and well-being* (four items)
- Responses for community resilience, individual resilience, and social cohesion items are measured on a 7-point scale from 1 (*strongly disagree*) to 7 (*strongly agree*)
- Two of the well-being items are evaluated by scoring 0 (*not at all satisfied*) to 100 (*completely satisfied*). The flourishing measure is ranged from 0 (*not at all worthwhile*) to 10 (*completely worthwhile*)

The Baseline Resilience Indicator for Communities (BRIC; Cutter et al., 2010)

- Five sub-indexes: social, economic, institutional, infrastructural, and community capacity:
 - Social resilience is measured by looking at the demographic (age, educational equality, numbers of disability), language competency, and access to communication and transportation.
 - Economic resilience is measured by looking at housing capital, employment, income and equality, business size and access to healthcare.
 - Institutional resilience is measured by looking at the community's mitigation plan, municipal services, political fragmentation and community previous disaster experiences.
 - Infrastructure resilience is analysed by measuring the housing types and age, shelter and medical capacity, community access and recovery.
 - Community capital is analysed by assessing place attachment, social capital-religion, civic involvement, numbers of social advocacy organisation and innovation.

References

- Adisaputri, G., & Le De, L. (2018). The role of religious beliefs and practices in disaster: The case study of 2009 earthquake in Padang city, Indonesia. *Disaster Prevention and Management*, 27(1), 74–86. <https://doi.org/10.1108/DPM-10-2017-0238>
- Aldrich, D. P. (2012). Social, not physical, infrastructure: The critical role of civil society after the 1923 Tokyo earthquake. *Disasters*, 36(3), 398–419. <https://doi.org/10.1111/j.1467-7717.2011.01263.x>
- Aldrich, D. P., & Meyer, M. A. (2015). Social Capital and Community Resilience. *American Behavioral Scientist*, 59(2), 254–269. <https://doi.org/10.1177/0002764214550299>
- Alvord, M. K., & Grados, J. J. (2005). Enhancing Resilience in Children: A Proactive Approach. *Professional Psychology: Research and Practice*, 36(3), 238–245. <https://doi.org/10.1037/0735-7028.36.3.238>
- Bridger, J. C., & Luloff, A. E. (2001). Building the Sustainable Community: Is Social Capital the Answer? *Sociological Inquiry*, 71(4), 458–472. <https://doi.org/10.1111/j.1475-682X.2001.tb01127.x>
- Bonanno, G. A., Brewin, C. R., Kaniasty, K., & Greca, A. M. L. (2010). Weighing the Costs of Disaster: Consequences, Risks, and Resilience in Individuals, Families, and Communities. *Psychological Science in the Public Interest*, 11(1), 1–49. <https://doi.org/10.1177/1529100610387086>
- Bonanno, G. A., Romero, S. A., & Klein, S. I. (2015). The Temporal Elements of Psychological Resilience: An Integrative Framework for the Study of Individuals, Families, and Communities. *Psychological Inquiry*, 26(2), 139–169. <https://doi.org/10.1080/1047840X.2015.992677>
- Buonfino, A., & Hilder, P. (2006). Neighbouring in contemporary Britain. *York: Joseph Rowntree Foundation*.
- Cutter, S. L., Barnes, L., Berry, M., Burton, C., Evans, E., Tate, E., & Webb, J. (2008). A place-based model for understanding community resilience to natural disasters. *Global Environmental Change*, 18(4), 598–606. <https://doi.org/10.1016/j.gloenvcha.2008.07.013>
- Cutter, S. L., Burton, C. G., & Emrich, C. T. (2010). Disaster Resilience Indicators for Benchmarking Baseline Conditions. *Journal of Homeland Security and Emergency Management*, 7(1). <https://doi.org/10.2202/1547-7355.1732>
- Forrest, R., & Kearns, A. (2001). Social Cohesion, Social Capital and the Neighbourhood. *Urban Studies*, 38(12), 2125–2143. <https://doi.org/10.1080/00420980120087081>
- Hernández, P. (2002). Resilience in Families and Communities: Latin American Contributions from the Psychology of Liberation. *The Family Journal*, 10(3), 334–343. <https://doi.org/10.1177/10680702010003011>
- Iacoviello, B. M., & Charney, D. S. (2014). Psychosocial facets of resilience: Implications for preventing posttrauma psychopathology, treating trauma survivors, and enhancing

- community resilience. *European Journal of Psychotraumatology*, 5(s4), 23970.
<https://doi.org/10.3402/ejpt.v5.23970>
- Jackson, D., Firtko, A., & Edenborough, M. (2007). Personal resilience as a strategy for surviving and thriving in the face of workplace adversity: A literature review. *Journal of Advanced Nursing*, 60(1), 1–9. <https://doi.org/10.1111/j.1365-2648.2007.04412.x>
- Kaniasty, K. (2012). Predicting social psychological well-being following trauma: The role of postdisaster social support. *Psychological Trauma: Theory, Research, Practice, and Policy*, 4(1), 22–33. <https://doi.org/10.1037/a0021412>
- Karoly, P., & Ruehlman, L. S. (2006). Psychological “resilience” and its correlates in chronic pain: Findings from a national community sample. *Pain*, 123(1), 90–97.
<https://doi.org/10.1016/j.pain.2006.02.014>
- Keim, M. E., & Noji, E. (2011). Emergent use of social media: A new age of opportunity for disaster resilience. *American Journal of Disaster Medicine*, 6(1), 47–54.
- Lager, D., Van Hoven, B., & Meijering, L. (2012). Places that Matter: Place Attachment and Wellbeing of Older Antillean Migrants in the Netherlands. *European Spatial Research and Policy*, 19(1), 81–94. <https://doi.org/10.2478/v10105-012-0007-6>
- Leykin, D., Lahad, M., Cohen, O., Goldberg, A., & Aharonson-Daniel, L. (2013). Conjoint Community Resiliency Assessment Measure-28/10 Items (CCRAM28 and CCRAM10): A Self-report Tool for Assessing Community Resilience. *American Journal of Community Psychology*, 52(3–4), 313–323. <https://doi.org/10.1007/s10464-013-9596-0>
- Lindberg, K., & Swearingen, T. (2020). A Reflective Thrive-Oriented Community Resilience Scale. *American Journal of Community Psychology*, 65(3–4), 467–478.
<https://doi.org/10.1002/ajcp.12416>
- Meredith, L. S., Sherbourne, C. D., Gailliot, S. J., Hansell, L., Ritschard, H. V., Parker, A. M., & Wrenn, G. (2011). Promoting Psychological Resilience in the U.S. Military. *Rand Health Quarterly*, 1(2), 2.
- Machisa, M. T., Christofides, N., & Jewkes, R. (2018). Social support factors associated with psychological resilience among women survivors of intimate partner violence in Gauteng, South Africa. *Global Health Action*, 11(sup3), 1491114.
<https://doi.org/10.1080/16549716.2018.1491114>
- MacLeod, S., Musich, S., Hawkins, K., Alsgaard, K., & Wicker, E. R. (2016). The impact of resilience among older adults. *Geriatric Nursing*, 37(4), 266–272.
<https://doi.org/10.1016/j.gerinurse.2016.02.014>
- Magis, K. (2010). Community Resilience: An Indicator of Social Sustainability. *Society & Natural Resources*, 23(5), 401–416. <https://doi.org/10.1080/08941920903305674>
- Mayunga, J. S. (2007). Understanding and applying the concept of community disaster resilience: a capital-based approach. *Summer Academy for Social Vulnerability and Resilience Building*, 1(1), 1-16.
- Morton, M. J., & Lurie, N. (2013). Community resilience and public health practice. *American Journal of Public Health*, 103(7), 1158–1160. <https://doi.org/10.2105/AJPH.2013.301354>

- Murray, K., & Zautra, A. (2012). Community Resilience: Fostering Recovery, Sustainability, and Growth. In M. Ungar (Ed.), *The Social Ecology of Resilience: A Handbook of Theory and Practice* (pp. 337–345). Springer. https://doi.org/10.1007/978-1-4614-0586-3_26
- Norris, F. H., Murphy, A. D., Kaniasty, K., Perilla, J. L., & Ortis, D. C. (2001). Postdisaster Social Support in the United States and Mexico: Conceptual and Contextual Considerations. *Hispanic Journal of Behavioral Sciences*, 23(4), 469–497. <https://doi.org/10.1177/0739986301234008>
- Okvat, H. A., & Zautra, A. J. (2011). Community Gardening: A Parsimonious Path to Individual, Community, and Environmental Resilience. *American Journal of Community Psychology*, 47(3–4), 374–387. <https://doi.org/10.1007/s10464-010-9404-z>
- Paton, D., Millar, M., & Johnston, D. (2001). Community resilience to volcanic hazard consequences. *Natural hazards*, 24(2), 157–169.
- Perkins, D. D., & Long, D. A. (2002). Neighborhood Sense of Community and Social Capital. In A. T. Fisher, C. C. Sonn, & B. J. Bishop (Eds.), *Psychological Sense of Community* (pp. 291–318). Springer US. https://doi.org/10.1007/978-1-4615-0719-2_15
- Pietrzak, R. H., & Cook, J. M. (2013). Psychological Resilience in Older U.S. Veterans: Results from the National Health and Resilience in Veterans Study. *Depression and Anxiety*, 30(5), 432–443. <https://doi.org/10.1002/da.22083>
- Putnam, R. D. (2000). Bowling alone: America's declining social capital. In *Culture and Politics* (pp. 223–234). Palgrave Macmillan, New York.
- Runswick-Cole, K., & Goodley, D. (2013). Resilience: A Disability Studies and Community Psychology Approach: Disability and Resilience. *Social and Personality Psychology Compass*, 7(2), 67–78. <https://doi.org/10.1111/spc3.12012>
- Saul, J. L., & Landau, J. (2004). Facilitating family and community resilience in response to major disaster. *Living beyond loss: Death in the family*. 2nd ed. New York: WW Norton & Co, 285–309.
- Sonn, C. C., & Fisher, A. T. (1998). Sense of community: Community resilient responses to oppression and change. *Journal of Community Psychology*, 26(5), 457–472. [https://doi.org/10.1002/\(SICI\)1520-6629\(199809\)26:5<457::AID-JCOP5>3.0.CO;2-O](https://doi.org/10.1002/(SICI)1520-6629(199809)26:5<457::AID-JCOP5>3.0.CO;2-O)
- Stanton-Salazar, R. D. (2011). A Social Capital Framework for the Study of Institutional Agents and Their Role in the Empowerment of Low-Status Students and Youth. *Youth & Society*, 43(3), 1066–1109. <https://doi.org/10.1177/0044118X10382877>
- Taylor, M., Wells, G., Howell, G., & Raphael, B. (2012). A Facebook study from 'Cyclone Yasi Update': The role of social media as psychological first aid as a support to community resilience building. *Australian Journal of Emergency Management*, 27(1), 20–26.
- Timmerman, I. G. H., Emanuels-Zuurveen, E. S., & Emmelkamp, P. M. G. (2000). The Social Support Inventory (SSI): A brief scale to assess perceived adequacy of social support. *Clinical Psychology & Psychotherapy*, 7(5), 401–410. [https://doi.org/10.1002/1099-0879\(200011\)7:5<401::AID-CPP253>3.0.CO;2-I](https://doi.org/10.1002/1099-0879(200011)7:5<401::AID-CPP253>3.0.CO;2-I)

- Turner, R. J., & Marino, F. (1994). Social Support and Social Structure: A Descriptive Epidemiology. *Journal of Health and Social Behavior*, 35(3), 193–212. JSTOR. <https://doi.org/10.2307/2137276>
- Udwan, G., Leurs, K., & Alencar, A. (2020). Digital Resilience Tactics of Syrian Refugees in the Netherlands: Social Media for Social Support, Health, and Identity. *Social Media + Society*, 6(2), 2056305120915587. <https://doi.org/10.1177/2056305120915587>
- Ungar, M. (2011). Community resilience for youth and families: Facilitative physical and social capital in contexts of adversity. *Children and Youth Services Review*, 33(9), 1742–1748. <https://doi.org/10.1016/j.childyouth.2011.04.027>
- van Kessel, G. (2013). The ability of older people to overcome adversity: A review of the resilience concept. *Geriatric Nursing*, 34(2), 122–127. <https://doi.org/10.1016/j.gerinurse.2012.12.011>
- Valentine, L., & Feinauer, L. L. (1993). Resilience Factors Associated with Female Survivors of Childhood Sexual Abuse. *American Journal of Family Therapy*, 21(3), 216–224. <https://doi.org/10.1080/01926189308250920>
- Walsh, F. (2007). Traumatic Loss and Major Disasters: Strengthening Family and Community Resilience. *Family Process*, 46(2), 207–227. <https://doi.org/10.1111/j.1545-5300.2007.00205.x>
- Wang, Z., Zhang, F., & Wu, F. (2016). Intergroup neighbouring in urban China: Implications for the social integration of migrants. *Urban Studies*, 53(4), 651–668. <https://doi.org/10.1177/0042098014568068>
- Weine, S. M., Levin, E., Hakizimana, L., & Dahnweih, G. (2012). How Prior Social Ecologies Shape Family Resilience Amongst Refugees in U.S. Resettlement. In M. Ungar (Ed.), *The Social Ecology of Resilience: A Handbook of Theory and Practice* (pp. 309–323). Springer. https://doi.org/10.1007/978-1-4614-0586-3_24

Appendix A: Four Social Capital (SC) Dimension Scales

Perkins and Long, (2002)

Social Connections Subscale ($\alpha = .55$ (T1), $.50$ (T2)):

Instructions for items 1-5:

"I am going to read some things that people might say about their block. For each one, please indicate whether it is mostly true or mostly false about your block" (coded 1 = "false", 2 = "true"; Note: Likert scale recommended for future research).

1. Very few of my neighbors know me. (Reverse)
2. I have almost no influence over what this block is like. (Reverse)
3. I can recognize most of the people who live on my block.

Mutual Concern Subscale ($\alpha = .50$ (T1), $.64$ (T2)):

4. My neighbors and I want the same things from the block.
5. If there is a problem on this block people who live here can get it solved.
6. In general, would you say that people on your block watch after each other and help out when they can, or do they pretty much go their own way?

(coded 1 = "go own way", 2 = "a little of both", 3 = "watch after")

Community Values Subscale (Face-valid SOC; $\alpha = .51$ (T1), $.61$ (T2)):

7. Would you say that it is very important, somewhat important or not important to you to feel a sense of community with the people on your block? (coded 1= "not", 2= "somewhat", 3= "very")
8. Some people say they feel like they have a sense of community with the people on their block; others don't feel that way. How about you; would you say that you feel a strong sense of community with others on your block, very little sense of community or something in between? (coded 1 = "very little", 2 = "in between", 3 = "strong")

Collective Efficacy Scale (α (T1) = $.82$, $n = 918$; α (T2) = $.82$, $n = 270$):

"The following are things a block association might try to do. For each one, indicate whether you think it is very likely, somewhat likely, or not likely that the association on your block can accomplish that goal" (coded 1 = "not likely" to 3 = "very likely").

9. Improve physical conditions on the block like cleanliness or housing upkeep.
10. Persuade the city to provide better services to people on the block.
11. Get people on the block to help each other more.
12. Reduce crime on the block.
13. Get people who live on the block to know each other better.
14. Get information to residents about where to go for services they need.

Citizen Participation Scale (α (T1) = $.78$, $n = 384$; α (T2) = $.80$, $n = 184$):

15. Are you currently a member of the block association?
16. Have you ever taken part in an activity sponsored by the block association?
17. Thinking about work you might do for the block association outside of meetings, how many hours would you say you give to the association each month, if any? "We would like to know what kinds of things people have done in the association. In the past year have you:"
18. Attended a meeting,
19. Spoken up during a meeting,
20. Done work for the organization outside of meetings,
21. Served as a member of a committee,
22. Served as an officer or as a committee chair?

Note: Each item was coded 1 for participation and 0 for no participation (#3 was recoded to match this scale, from 0 = "none" to 1 = "8 or more hours").

Neighboring Behavior Scale (α (T1) = .78, n = 1,037; α (T2) = .77, n = 615):

"The following is a short list of things neighbors might do for each other. Please indicate how many times in the past year, you have been asked to do each one for a neighbor on this block" (coded 0 = "none", 1-7 = "exact number", and 8 = "eight or more").

23. Watch a neighbor's home while they were away.
24. Loan a neighbor some food or a tool.
25. Help a neighbor in an emergency.
26. Offer a neighbor advice on a personal problem.
27. Discuss a problem on the block with a neighbor.

Appendix B: The Conjoint Community Resiliency Assessment Measure

Leykin et al. (2010)

Item Content:

1. The municipal authority (regional council) of my town functions well
2. There is mutual assistance and concern for others in my town
3. My town is organized for emergency situations
4. I am proud to tell others where I live
5. The relations between the various groups in my town are good
6. I have faith in the decision makers in the municipal authority (regional council)
7. I can depend on people in my town to come to my assistance in a crisis
8. The residents of my town are acquainted with their role is in an emergency situation
9. I feel a sense of belonging to my town
10. There is trust among the residents of my town
11. In my town, appropriate attention is given to the needs of children
12. There are people in my town who can assist in coping with an emergency
13. In my town, there are sufficient public protection facilities (such as shelters)
14. I remain in this town for ideological reasons
15. I have faith in the ability of the elected/nominated head of my town to lead the transit from routine to emergency management of the town
16. I believe in the ability of my community to overcome an emergency situation
17. My family and I are acquainted with the emergency system of my town (to be activated in times of emergency)
18. I would be sorry to leave the town where I live
19. The municipal authority (regional council) provides its services in fairness
20. The residents of my town are greatly involved in what is happening in the community

Note: CCRAM-10 is composed of items 1-10

Appendix C: A Reflective Thrive-oriented Community Resilience Scale

Lindberg & Swearingen (2020)

Community Resilience

1. During emergencies, my community will be able to provide key services, such as police and fire protection (Emergencies)
2. If climate does change over time, with effects such as rising sea levels, we'll be able to adapt and sustain our community (Climate change)
3. We'll be able to recover and sustain our community if there's extensive flooding here (Flooding)
4. We'll be able to recover and sustain our community if there's a significant earthquake and/ or tsunami here (Earthquake–tsunami)
5. When a problem occurs, community members are able to deal with it (Deal with problems)
6. My community is able to “bounce back” from downturns in the local economy (Economy bounce back)

Individual Resilience

1. I could cope with an earthquake and tsunami in my community
2. I can deal with any emergencies that might occur
3. I can get through difficult times because I've experienced them before
4. My belief in myself gets me through hard times
5. When I'm in a difficult situation, I can usually find a way out of it

Cohesion and Well-being

1. People in our community work together even when they disagree (Social cohesion)
2. How satisfied you have been with your life overall and with some specific aspects of your life over the past year? (Well-being, life overall)
3. How satisfied you have been with your life overall and with some specific aspects of the community and its culture over the past year?“ (Well-being, community)
4. To what extent do you feel the things you do in your life are worthwhile? (Well-being, flourishing)



For more information about R2 or to discover how you can bring the program to your organization, business or educational setting, please contact us.

Paul McGuinness

Operations Manager

✉ rrc@dal.ca

☎ (902) 494-8482

Michael Ungar, PhD

Director

✉ michael.ungar@dal.ca

☎ (902) 229-0434



RRC - Evaluation
and Training Institute