Correlation of Resilience with Good Relations with Neighbors

Margarette C. Cayetano
College of Nursing
San Beda University, Manila, Philippines
mcayetano@sanbeda.edu.ph

Pocholo R. Autencio
College of Nursing
San Beda University, Manila, Philippines
pautencio@sanbeda.edu.ph

Walter Jerome S. Cabale
College of Nursing
San Beda University, Manila, Philippines
wcabale@sanbeda.edu.ph

Abstract

One of the internal resources being performed to have a better performance in different aspects of the individual life is resilience. The quality of resilience is frequently attributed to individuals who overcome all challenges and problems in life. The purpose of this study was to analyze the presence of correlation between resilience as a trait and neighborhood as an environmental factor. Wherein, neighborhood was further classified into five (5) underlying factors namely, the Physical Order, the Land Use and Service, the Social Norms and Values, the Social Capital, and, the Social order. This quantitative, cross-sectional, correlational study has utilized self-rated standardized questionnaires—the Brief Resiliency Scale of 2008 by Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J., and the Perceived Neighborhood Scale of 2013 by Gariepy G, Smith KJ, Schmitz N. The sample consisted of eighty (80) selected participants in Barangay San

Roque, Murphy, Quezon City. Based on the results of the study, two (2) among neighborhood underlying factors were found to have significant negative relationship with resilience, specifically the Physical order (p= 0.047) and the Social order (p= 0.023). Conversely, there was no significant relationship found between resilience and the other underlying factors of neighborhood. Hence, it is recommended that future researches should further focus on other factors that may have stronger link with resilience such as local community and family support, and/or educational environment and teacher bonding for student populations.

Keywords: neighborhood, physical order, resilience, social capital, social order

Background of the Study

Recent data indicate the rising prevalence of mental health issues (Hidaka, 2012). Wherein, about a third of all adult health problems were attributed to mental illnesses (Anderson,Jané-Llopis, and Hosman, 2011), which was viewed as the global pandemic of the 21st century and which had led enormous psychosocial costs (Lake and Turner, 2017).

In the Philippines, there were evidences of increased incidence of mental health issues along with the presence of underdeveloped mental health services (Lally, Tully, and Samaniego, 2019). This further implies the relevance of a paradigm shift and a broader view on how to deal with mental health issues (Lake and Turner, 2019).

It is on this regard that the researchers considered to look into factors such as resilience that may have protective mechanisms against mental health problems. Where, resilience is the ability to "bounce back" from adversity or stressful situation (Smith et al, 2008; Levine, 2003) that could have otherwise sent an individual into experiencing a mental health problem like depression. According to Farber and Rosendahl (2018), resilience is adaptation to negative experiences and they found out in their systematic review that, indeed, there is a strong association between resilience and mental health.

With the strong correlation between mental health and resilience, the researchers chose to look into factors that may be correlated with the individual-level type of resilience. This further led the researchers to specifically explore neighborhood having considered that the social environment of an individual affects establishment of one's resilience. The adverse circumstances and consequences experienced by the individual could have cumulative effects on health however, such effects are mitigated by resilience, which is influenced by family and the environment (Jafee, Caspi, Moffitt, Polo-Tomás, and Taylor, 2007). Further, it also showed that neighborhood's social capital protects individuals against mental problems (Stafford, De Silva, Stansfeld, & Marmot, 2007). Apparently, there is a lack of literature that attempts to directly correlate **individual-level type of resilience** with one's neighborhood which further motivated the researchers to dwell into this study.

In cognizant of the above, the researchers primarily aimed to determine presence of significant relationship between resilience and neighborhood factors. It was correspondingly on this regard that the researchers would be able provide additional relevant literature and studies considering its paucity, that this study was deemed significant.

Review of Related Literature

Resilience

Resilience is defined as the ability to bounce back from adversity or stressful situation (Smith et al, 2008; Levine, 2003). It is a complex construct (Southwick et al 2016; Jaffee et al, 2007) and has been defined in many ways (Smith et al, 2008). Zautra et al (2010) defined it as an outcome of successful adaptation to adversity and is composed of two phases, the recovery and the sustainability. The Recovery phase is when a person tried to regain equilibrium, physically, psychologically, and socially. The Sustainability phase refers to the trait of sustaining health and well-being amidst a dynamic and challenging environment. It is supported by another definition that resilience is helpful to beat affliction and to abstain from encountering significant negative outcomes (Ruvalcaba-Romero, Gallegos-Guajardo and Villegas-Guinea, 2014). Geldhof, Little and Colombo (2010), stated that resilience is likely to occur when individuals possess the capacities or skills to align themselves with the developmental assets. Furthermore, resiliency is the capacity to defeat difficulties of various types of unavoidable challenges such as tragedy and crises, and still come back stronger, wiser, and more vigorous (Henderson, 2013).

Another definition according to Masten (2015) regarded resilience as the capacity of a system to adapt successfully to challenges that threaten the function, survival, or future development of the system. Lerner, et al (2012) also posited a connection between the individual and the individual's environment has adaptive importance.

Factors Affecting Resilience

Personal decisions like actively choosing to be healthy or to be strong also affect resilience. Cheung, et al (2018) claimed that individual factors exhibited by actively choosing to seek help, keep calm, and make a plan of action in fact lead to a better mental adaptation. Hence, resilience is further regarded as positive adaptation to adversity (Farber & Rosendahl, 2018).

Social support gained from close peers, family, and neighbors may likewise improve one's resilience (Jaffee, et al, 2007).In their study on students, they posited that strong social support from teachers and peers, would more likely develop resilience among students.

Similarly, the quality of social interaction, like having good relations with neighbors, appeared to have indirect effects on resilience and wellbeing. According to Global Peace Index (2019), good relations with neighbors—which is a pillar of positive peace, can lead to a better community. In connection, there are studies that further highlighted the significance of good relations with neighbors, particularly the support in case of an emergency. In which, having the options to depend on neighbors can lessen the concerns with respect to personal safety (Greenfield et al., 2014). This in general may lessen the impact of stress, trauma, and other adversities.

Resilience and Neighborhood

The potential relationship between the social environment and resilience may go both ways. According to Seligman and Fowler (2011), an increase in positive emotions, virtues, character strengths, wellbeing and resilience across different populations might contribute to better relationships among the people. Additionally, Zhang et al (2019) claimed that resilience moderates social cohesion and social distress.

Ross and Mirowski (1999) also stated that physical order and social order in the neighborhood have effects on the wellbeing of the residents. Morton and Laurie (2013) likewise noted that even physical structures, like buildings, may promote resilience.

Southwick, et al (2016) proposed that the neighborhood may as well provide opportunities to individuals to master challenges and other stressful events. These events gave the individuals an "inoculating" or "steeling" effect that enhances their resilience. Stafford, et al (2008) also found out in their study that the neighborhood may have protective effects against common mental disorders. In the same way, Wanderman and Nation (1998) concluded in their paper that neighborhood characteristics can have positive psychological effects.

In summary, resilience is multifaceted and is affected by various factors. One of these potential factors is the neighborhood. In relation to this study, due to the absenceof literature directly associating neighborhood and resilience, it is however deemed by the researchers that neighborhood factors may be related or significant to the development of individual's resilience.

Conceptual Framework

This study on correlation of resilience and neighborhood factors was basically guided by the concepts of Smith et al (2008), that resilience is the ability to bounce back or recover from stress. Where resilience is characterized by recovery, resistance, adaptation and thriving.In which, recovery is the return to the former level of functioning; resistance is the ability not to become ill or have diminished function due to stress; adaptation is how the people adjust to the new situations; and thriving is moving to a higher functioning level.

On the other hand, neighborhood was based on the views by Gariepy, et al (2013)which were inspired by several studies including Wanderman and Nation (1998), Ross and Mirowsky (1999), and Stafford et al (2008). Where neighborhood serves as a source of community resources that may affect a person's well-being.Moreover, the neighborhood was the building block of any city and the majority of ecological effects was expected to come from it (Wandersman & Nation, 1998). It was believed that neighborhood characteristics have consequences on the health of the people that may include environmental stressors like noise, pollution, etc. and social and physical incivilities. Hence, the environment or community factors can also have an effect on resilience.

Even further, as according to Ross and Mirowsky (1999)it was viewed that neighborhood disorder is the lack of safety, peace and control. In which, physical disorder refers to overall appearance of neighborhood, which includes presence of graffitti, vandalism, etc. While, social disorder refers to lack of social control and pertains to human activities. Fights and crime were some of the visible signs of social disorder. Both types of disorder were seen on a continuum.

Likewise, Stafford, et al (2008), proposed that neighborhood social capital have an impact on mental health. Where social capital refers to the social characteristics of the neighborhood. It has a structural component (social networks) and cognitive network (quality of social interactions) which Gariepy, et al (2013) have incorporated in the Perceived Neighborhood Scale.

Figure 1.

Operational Framework

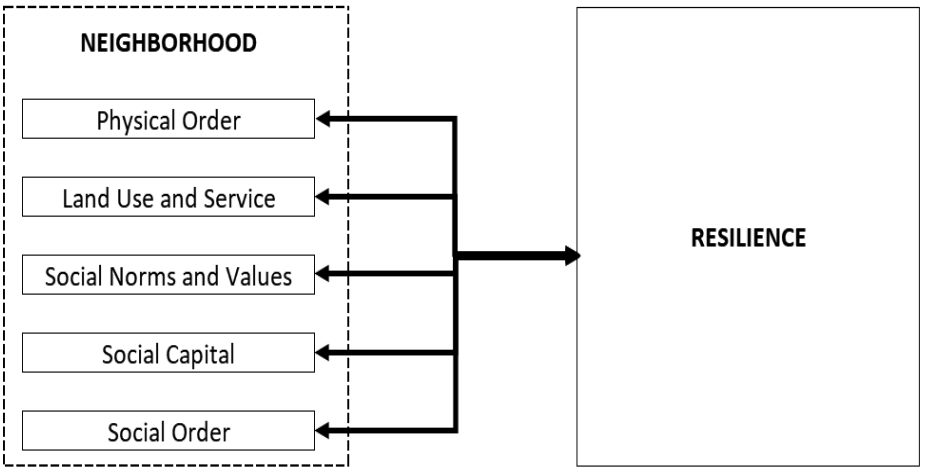

Figure 1 illustrates the relationship between the variables of the study. In which, neighborhood was further characterized into five (5) factors—the Physical Order, the Land Use and Service, the Social Norms and Values, the Social Capital, and, the Social order. These neighborhood factors were further explored geared on determining the correlation of each factor towards resilience and vice versa, as represented by the set of arrows in between.

Methodology

Research Design and Approach.

A Quantitative, cross sectional, Correlational design was employed in this study. There were no manipulation of variables and no control variables were used for comparison. No pilot study was done due to the time constraints. Data were gathered with the use of self-rated standardized questionnaires.

Research Participants.

The participants of the study were the people residing in Barangay San Roque, Murphy, Quezon City. The locale is one of the institutional partners of the funding agency of the researchers. Data gathered in this study will also be used as bases for future community projects.

Sampling Design.

The research has utilized purposive sampling method over a non-representative subset of larger population. Barangay San Roque has seven (7) areas with an overall population of approximately 25,000. The researchers haveonly surveyed the two (2) most accessible areas, interviewed whomever is available that finally resulted to a total of eighty (80) sample size. Inclusion criteria include: age that is eighteen (18) and above; can read and write; and has been a community resident for at least six (6) months.

Data Collection.

The researchers have secured an approval from the Ethics Board of San Beda University. The researchers also sought permission from the Barangay Captain of the chosen community. Data gathering took place from February 15 to 28, 2020. Survey questionnaires were personally distributed to the participants and participants were informed about the objectives, the potential risks

and the benefits of participation in the study. The participants were given ample time to clarify matters or ask questions about the study, and the written consent of the participants was obtained prior to data collection.

Collected documents were secured and kept confidential and were only accessible to the researchers. The collected documents will be destroyed after five (5) years from date of publication. The study was presented during the San Beda University Research Summit 2020.

Measurement and Instrumentation

Brief Resilience Scale

The first part of the research instrument contains the brief self-rating questionnaire known as the Brief Resiliency Scale developed by Smith et al (2008) was chosen in this study to measure resilience of the selected participants. The instrument was consist of six (6) items: items 1, 3, and 5 were positively worded, and items 2, 4, and 6 were negatively worded. This research instrument measures resilience as a unitary construct and not according to specific domain or sub-construct. Participants were asked to answer each question by indicating how much they agreed with each statement by using the following scale: 1(strongly disagree), 2(disagree), 3(neutral), 4 (agree), and 5 (strongly agree). The score of the responses varied from 1 to 5 for all six items giving an overall scores ranging from 6 to 30. The total sum (overall score) was divided by the total number of questions answered and the results were finally interpreted as: low (1.00-2.99), normal (3.00-4.300), and high (4.31-5.00).

Perceived Neighborhood Questionnaire

The second part of the research instrument contains the Perceived Neighborhood Questionnaire developed by Gariepy G, Smith KJ, Schmitz N. (2013). The tool contained five (5) neighborhood factors: the physical order (10 items), the land use

and services (13 items), the social norms and values (2 items), the social capital (4 items) and the social order (3 items). There were two scales with six answer options on each: "strongly agree", "agree", "disagree", "strongly disagree", "don't know", and "refuse to answer" for the first, and "excellent", "good", "fair", "poor", "don't know" and "refuse to answer" for the other. There was no score interpretation for the Perceived Neighborhood Questionnaire as it was intended directly used the scores to correlate with other measures.

Data Preparation and Analysis

The data gathered from the participants were encoded utilizing a Microsoft Excel spreadsheet. The Brief Resiliency Scale offered reversed scoring for negatively stated items, hence, encoded as is. The Perceived Neighborhood Questionnaire also contained negatively stated questions but the scores were reversed by the researchers during the encoding process.

To determine the level of resilience and the average score of the perceived neighborhood, descriptive statistics, particularly Arithmetic Mean, was employed by the researchers.

In the analysis of the relationship between the two variables, the researchers applied inferential statistics. Specifically, Spearman rho was used to determine if there was a significant correlation between resilience and neighborhood as perceived by the participants. The Spearman rho was chosen over Pearson r since the data was not normally distributed for neighborhood factors after utilizing Shapiro-Wilk. The Shapiro-Wilk p values obtained for the Neighborhood factors were as follows: the Physical Order (0.011), the Land Use and Land Service (0.425), the Social Norms and Values, the Social Capital, and the Social Order have p values of < less than 0.001. Jamovi 0.9.5.15 statistical software was utilized for data analysis.

Table 1

Mean Scores of Resilience and Perceived Neighborhood

	Resilience	Perceived Neighborhood
N	80	80
Missing	0	0
Mean	3.36	3.68
Standard deviation	0.596	0.299
Minimum	2.00	3.00
Maximum	5.00	4.41

Table 1 shows the Mean scores for Resilience and Perceived Neighborhood. It indicates that the mean resiliency of the participants was noted to be 3.36, with a standard deviation of 0.596. Based on the qualitative interpretation provided in the brief resilience scale, these suggest that on the average, the participants have a normal level of resilience. The overall perceived neighborhood score rated by the participants has a mean of 3.68, with a standard deviation of 0.299.

Table 2

Neighborhood Factors

	Physical Order	Land Use and Services	Social Norms and Values	Social Capital	Social Order
N	80	80	80	80	80
Missing	0	0	0	0	0
Mean	3.42	3.82	3.70	3.78	3.79
Median	3.40	3.85	4.00	4.00	4.00
Standard deviation	0.373	0.351	0.916	0.707	0.897
Minimum	2.40	3.00	1.00	1.75	1.00
Maximum	4.40	4.92	5.00	5.00	5.00

Looking into the different neighborhood factors specified in Table 2, it is noted that the mean scores were close to each other with the Land Use and Services having the highest mean score of 3.82, and the Physical Order having the lowest mean score of 3.42.

Table 3

Brief Resiliency Scale Items

Brief Resiliency scale	**Mean**
I tend to bounce back quickly after hard times	3.525
I have a hard time making it through stressful events.	3.3625
It does not take me long to recover from a stressful event.	3.4125
It is hard for me to snap back when something bad happens.	3.3875
I usually come through difficult times with little trouble.	3.275
I tend to take a long time to get over set-backs in my life.	3.2125
Total	3.3625

Table 4

Perceived Neighborhood Questionnaire Items

Neighborhood Factors	**Mean**
Physical order	**3.4188**
My neighbourhood is well maintained.	4.0875
It is pleasant to walk in my neighbourhood.	3.85
There are many trees along the streets in my neighbourhood.	3.525
The buildings and houses in my neighbourhood are interesting.	3.6625
There is a lot of noise in my neighbourhood.	3.7125
There is a lot of unpleasant smells in my neighbourhood.	3.3375
My neighbourhood has heavy traffic.	3.1125
There is a lot of trash and litter on the street in my neighbourhood.	3.1375
There is vandalism in my neighbourhood.	2.875
There is a lot of graffiti in my neighbourhood.	2.8875
	3.8173
Land Use and Services	
There are interesting things to do in my neighbourhood.	3.725
There are many destinations within walking distance from my home	3.85
There are many places to be physically active in my community.	3.8
There is a park or walking trail within a short walk from my home.	3.325
There are sidewalks on most streets in my community.	3.775

Table 4

Continued

Land Use and Services	**Mean**
It is easy to walk to a bus stop, train, or subway station from my home.	3.4
There are busy roads to cross when out for walks in my neighbourhood.	3.575
How would you rate access to shopping in your neighbourhood?	4.2375
How would you rate the access to medical care in your neighbourhood?	3.9
How would you rate the policing in your neighbourhood?	3.95
I have easy access to a large selection of fresh fruits and vegetables in my neighborhood.	4.1875
I have easy access to large selection of healthy foods in my neighbourhood.	4.05
I have easy access to many fast food restaurants in my neighbourhood.	3.85
Social Norms and Values	**3.7**
I often see people walking in my neighbourhood.	3.925
I often see people exercising in my neighbourhood	3.475
Social Capital	**3.7844**
Most people in my neighbourhood are friendly.	4.175
People in my neighbourhood are willing to help their neighbors.	4.1625
People in my neighbourhood can be trusted.	3.4
People in my neighbourhood share the same values.	3.4
Social Order	**3.7875**
My neighbourhood is safe	3.95
Violence is not a problem in my neighbourhood	3.775
There are too many people hanging around on the streets near my home	3.6375

Table 3 and Table 4 present the mean scores for the participants' Resilience and Perceived Neighborhood. Since the Brief Resilience Scale measures resilience as a unitary construct, the total mean was utilized to analyze resilience. Conversely, as for the Perceived Neighborhood, very few items scored greater than 4.0. For the Physical Order, participants have generally agreed that their neighborhood was well-maintained. For the Land Use and Services, the access to fresh fruits and vegetables scored the highest at 4.1875. For the Social Norms and Values, more people were seen to be walking around the neighborhood (3.925) as compared to those

seen exercising (3.475). For the Social Capital, having friendly neighbors scored highest (4.175). And lastly for the Social Order, neighborhood safety was rated highest (3.95).

Table 5.

Correlation of Resilience and Perceived Neighborhood

		Resilience	Neighborhood Relations
Resilience	Spearman's rho	—	-0.075
	p-value	—	0.509
Neighborhood Relations	Spearman's rho		—
	p-value		—

Note. * p < .05, ** p < .01, *** p < .001

Table 6

Correlation of Resilience and Components of Perceived Neighborhood

		Resilience	Physical Order	Land Use and Service	Social Norms and	Social Capital	Social Order
Resilience	Spearman's rho	--	-0.223*	0.109	0.024	0.041	-0.254*
	p-value	--	0.047	0.335	0.831	0.720	0.023
Physical Order	Spearman's rho			0.186	-0.082	0.201	0.071
	p-value			0.099	0.470	0.074	0.532
Land Use and Service	Spearman's rho				-0.015	0.303**	0.148
	p-value				0.897	0.006	0.190

Table 6

Continued

		Resilience	Physical Order	Service and Land Use	Social Norms and	Social Capital	Social Order
Social Norms and Values	Spearman's rho				--	0.073	0.076
	p-value				--	0.519	0.501
Social Capital	Spearman's rho					--	0.167
	p-value					--	0.139
Social Order	Spearman's rho						--
	p-value						--

Table 6 reveals that there is no significant relationship between Resilience and the total Perceived Neighborhood with a p value greater than 0.05 (rho= -0.075, p= 0.509). However, when analyzing Resilience and each of the Neighborhood factors, two neighborhood factors are significantly related to resilience. These are the Physical Order (rho= -0.223, p= 0.047) and the Social Order (rho= -0.254, p= 0.023), both of which having a p-value of less than 0.05. The negative rho values indicate a negative correlation between these factors and Resilience. This further conveys that the less physical and social order perceived, the higher the resilience of the participants.

Results and Discussions

The lack of significant correlation between Resilience and overall Perceived Neighborhood may stem from the fact that resilience is a complex concept (Southwick, et al, 2016) that requires study of a plethora of other factors. These factors include the personal characteristics (Levine, 2003) and the social support (Ozbay, et al., 2007) that improve a person's

resilience. The researchers further believe that the participants' neighborhood was not sufficient to have a significant and meaningful impact on raising their resilience.

Likewise, certain aspects of the neighborhood may have more influence on resilience than others. Specifically, for this study, the researchers noted that the physical order and the social order of the neighborhood may have some bearing on resilience. Jaffee, et al. (2007) also stated that resilience may be a result of the cumulative effects of adverse consequences from a person's family and even the neighborhood. It was noted in their study that those who were able to get social support, like that from family and teachers, seem to be more resilient. Whereas, those who tend to be less resilient were the ones rejected by their peers. Likewise, it suggested that resilience was more strongly influenced by the social support from close peers, rather than the neighborhood per se. Similarly, Ozbay, et al. (2007) found in their review that social support actually mediated the effects of the environment or neighborhood to a person's resilience.

On the other hand, this study also noted that there was negative correlation between resilience and the individual components of physical order and social order. This moreover suggests that a decrease in the quality of these components may somehow increase resilience. According to Southwick et al (2016), an enormous corpus of studies proposed that the negative things in the environment give a person the chance to triumph against adversity and handle stress. This opportunity gives a person an "inoculating" or "steeling" effect that may help promote resilience.

Furthermore, Farber, and Rosendahl (2018) defined resilience as a positive adaptation to stressful events and that, according to them, some viewed resilience as a dynamic process. Perhaps this process involved exposure to negative or stressful events to further strengthen one's resilience. The effects of the physical and social disorder however, were not well understood (Ross & Morowski, 1999).

Relatively, Tiet, et al. (2009) studied youths that have high resilience despite being exposed to a high-risk neighborhood because there was better bonding with family members and teachers. An older study by Brodsky (1996) on resilient mothers further supported this, as Brodsky noted mothers exposed to negative environmental stressors may still be

resilient. This was because these mothers were more concerned on actively choosing to create successful outcomes rather than relying on participating in the community. Despite the adversity, they were able to gain positive outcomes. Zautra, et al. (2010) also supported this by claiming that awareness and choice characterize sustainability which is needed for maintaining resilience.

Being resilient then may be due more to the social support from people with close relationship with the person, and their individual traits like actively choosing to be better. Cheung et al (2018) believed that personal factors (e.g. physical health, choosing to seek help, staying calm, and actively making a plan of action) lead to better physical and mental health outcomes.

Conclusion and Recommendations

Resilience is complex and is affected by multiple factors; with their effects stack up over time. Though Physical order and Social order components of the neighborhood may have an "inoculating" effect that may help build resilience, it appears that individual traits and social support from close peers have more impact on resilience than the overall neighborhood.

It is in these contexts that the researchers recommend future studies to include the effectiveness of community-based interventions offered in local communities. Liu et al (2018) in their study stated the limitations on interventions promoting resilience. They also recommended studying large human communities, thus, the researchers likewise recommend that future researchers correspondingly focus on another type of community, the school environment, and its effects on resilience among students. In the same way, evaluation of interventions and programs offered in schools that promote resilience may also be considered.

References

Anderson, P., Jane-llopis, E., &Hosman, C. (2011). Reducing the silent burden of impaired mental health. *Health Promotion International, 26*(suppl 1),http://doi.org/10.1093/heapro/dar051

Brodsky, A. E. (1996). Resilient single mothers in risky neighborhoods: Negative psychological sense of community. *Journal of Community Psychology, 24*(4), *347–363.* https://do.org/ 10. 1002/(sici)1520-6629(199610)24:4<347::aid-jcop5>3.0.co;2-r.

Cheung, K., Taillieu, T., Turner, S., Fortier, J., Sareen, J., MacMillan, H. L., Boyle, M., Afifi, T. O. (2018). Individual-level factors related to better mental health outcomes following child maltreatment among adolescents. *Child Abuse & Neglect, 79, 192–202.* https://doi,org/10.1016/j.chiabu.2018.02.007

Färber, F., & Rosendahl, J. (2018). The association between resilience and mental health in the somatically ill.*DeutschesAerzteblatt Online.* https://doi.org/10.3238 /arztebl.2018.0621

Gariepy G, Smith KJ, Schmitz N. (2013). Diabetes distress and neighborhood characteristics in people with type 2 diabetes. *Journal of Psychosomatic Research.* 75:147-152.

Geldhof, G. J., Little, T.D. & Colombo, J. (2010). Self-regulation across the life span, *Handbook of life-span development1* (2), 116-157.

Greenfield, E.A., & Reyes, L. (2014). Continuity and change in relationships with neighbors: implications for psychological well-being in middle and later life. *Journals of Gerontology, Series B:Psychological Sciences and Social Sciences, 70*(4), 607–618,https://doi.org./10.1093/geronb/ gbu084.

Henderson, M. (2013). Growing up with domestic violence: The voices of resilience. htpps://mro.massey.ac.nz/bitstream /handle/10179/4868/02 _whole.pdf

Hidaka, B. H. (2012). Depression as a disease of modernity: Explanations for increasing prevalence. *Journal of Affective Disorders, 140*(3), *205–214.* https://doi.org/10.1016/j.jad. 2011 .12.036

Institute for Economics and Peace(2018)*Positive peace report 2018: Analysing the factors that sustain peace.*https: //vision of humanity.org/reports/.

Jaffee, S. R., Caspi, A., Moffitt, T. E., Polo-Tomás, M., & Taylor, A. (2007). Individual, family, and neighborhood factors distinguish resilient from non-resilient maltreated children: A cumulative stressors model. *Child Abuse & Neglect, 31*(3), *231–253.* https://doi.org./10.1016/j.chiabu.2006.03 .011

Lally, J., Tully, J., & Samaniego, R. (2019). Mental health services in the Philippines. *BJPsych International, 1–3.* https://doi.org/10.1192/ bji.2018.34

Lake, J., & Turner, M. (2017). Urgent need for improved mental health care and a more collaborative model of care.*The Permanente Journal.* https://doi.org/10.7812/tpp/17-024

Lerner, R. M., Weiner, M. B., Arbeit, M. R., Chase, P. A., Agans, J. P., Schmid, K. L., & Warren, A. E. A. (2012). Chapter 14 Resilience Across the Life Span. *Annual Review of Gerontology and Geriatrics, 32*(1),(pp. 275–299).https://doi.org/10.1891/0198-8794.32.275

Masten, A.S. (2015). *Ordinary magic: resilience in development*. Guilford Publications.

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

Ozbay, F., Johnson D.C., Dimoulas, E., Morgan, C.A., Charney, D., & Southwick, S. (2007). Social Support and Resilience to Stress: from Neurobiology to Clinical Practice. *Psychiatry (Edgmont). 4*(5)*:35-40.*

Ross, C. E., &Mirowsky, J. (1999). Disorder and decay. *Urban Affairs Review, 34*(3), *412–432*. https://doi.org/10.1177/107808749903400304

Ruvalcaba-Romero, Gallegos-Guajardo and Villegas-Guinea. (2014). Validation of resilience scale for adolescents (READ) in Mexico. *Journal of Behavior, Health & Social Issues 6*(2)*21-34*. https://doi.org/: 10.5460/jbhsi.v6.2.41180.

Seligman, M. E. P., & Fowler, R. D. (2011). Comprehensive soldier fitness and the future of psychology. *American Psychologist*, 66, 82–86. https://doi.org/10.1037/a0021898.

Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008).The brief resilience scale: Assessing the ability to bounce back. *International Journal of behavioral Medicine*, *15*(3), 194-200.

Southwick, S. M., Sippel, L., Krystal, J., Charney, D., Mayes, L., &Pietrzak, R. (2016). Why are some individuals more resilient than others: the role of social support. *World Psychiatry, 15*(1),*77–79.* https://doi.org/10.1002/wps.20282

Stafford, M., De Silva, M., Stansfeld, S., & Marmot, M. (2008). Neighbourhood social capital and common mental disorder: Testing the link in a general population sample.*Health & Place, 14*(3),*394–405.* https://doi.org/10.1016/j.healthplace.2007.08.006

Tiet, Q. Q., Huizinga, D., & Byrnes, H. F. (2009). Predictors of Resilience Among Inner City Youths. *Journal of Child and Family Studies*, *19*(3),*360–378.* https://doi.org/10.1007/s10826-009-9307-5.

Wandersman, A., & Nation, M. (1998). Urban neighborhoods and mental health: Psychological contributions to understanding toxicity, resilience, and interventions.*American Psychologist, 53*(6),*647–656.* https://doi.org/10.1037/0003-066x.53.6.647

Windle, G., Bennett, K.M., & Noyes, J. (2011). A methodological review of resilience measurement scales. *Health and Quality of Life Outcomes*, *9*(8), 2- 18. https://doi.org/10.1186/1477-7525-9-8

Zautra, A.J., Hall, J.S., &Murray, K.E. (2010). Resilience: A new definition of health for people and communities. In J.R. Reich, A.J. Zautra, & J.S. Hall (Eds). *Handbook of Adult Resilience* (pp. 3-30). Guilford