

The effect of housing on mental health well-being in adolescent mothers

Final Project Report

Pivotal Agency: Rosalie Hall

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Date: May 23, 2006

Abstract

Rosalie Hall is a centre located in Scarborough, Ontario which provides young parents who are in need with assistance and resources. Typically, these parents are impoverished, lack housing, suffer from social isolation, lack education or have significant mental health needs. The purpose of this study was to determine the impact of housing on the mental health well-being of adolescent mothers. Mental health well-being refers a person's ability to cope with challenges, the level of their self-esteem, their mastery over their lives and their sense of coherence. Mental health well-being is important as low levels of it have been shown to put individuals at a risk for depression. The hypothesis of this study was that participants which reported living in inadequate housing conditions would have low mental health well-being and vice versa. In turn, those that had low mental health well-being would have an increased susceptibility to depression. Participants for this study were recruited from the day school program at Rosalie Hall. All participants were under the age of 21, were mothers and were clients of Rosalie Hall. The participants all completed a questionnaire regarding their housing situations and on their mental health well-being. Housing attributes, positive and negative, were overall categorized as being high or low. Mental health well-being characteristics – i.e. coping, self-esteem, mastery and sense of coherence – were categorized as being either high or low. A Fisher Exact Test was used to determine whether a statistically significant association existed between housing attributes and mental health well-being characteristics. A total of 18 participants, having an average age of 18.4 +/- 1.3 years, participated in the study. One third of the participants reported high negative housing attributes, while one half of the participants reported high positive housing attributes. The percent of participants reporting high mental health well-being characteristics were as follows: 22% for coping, 56% for self-esteem, 17% for mastery, and 0% for sense of coherence. The association between mental health well-being characteristics and housing attributes was not statistically significant and no trends were found. These results are inconclusive and no recommendations can be made regarding characteristics of housing that improve mental health well-being. It is recommended that a future study look specifically at depression as a health outcome with a larger sample size to further investigate this research topic.

MeSH Keywords: *housing, mental health, pregnancy in adolescence*

Background

Rosalie Hall is a young parent resource center providing health and social services to young single pregnant women, their children, and families. The resource center is guided by a mission statement of: “Rosalie Hall, with compassion and respect, assists young parents in need and their children to realize their potential thorough the provision of a wide range of community, residential, educational and child development services (1).” In essence, the center strives to provide the framework for their clients, the young women, to lead healthy, meaningful and productive lives.

Rosalie Hall’s clients often lack parenting skills, experience abuse, live in poverty, lack appropriate housing, are involved with criminal behavior, have a decreased level of education, have difficulties securing employment and have significant mental health needs (2). Without intervention, these risks can have detrimental effects on the health of both parent and child. In order to address the needs of these families, the center provides programs with regards to outreach, early infant and child development, community-based support, school-based support and residential care/treatment.

The programs and interventions Rosalie Hall provides for young parents are carefully modeled after research which has shown the potential for the effectiveness of the programs. These programs have been successful as they have resulted in a significant reduction of risk factors in their participants. Each year, more than 800 women are serviced by these programs on an ongoing basis. In addition, 6000 outreach contacts with young parents and children are made

each year. As such, Rosalie Hall continues to reach its goals of reducing teen pregnancy rates, impacting infant and child development, providing parents with better skills, providing higher education and employment, providing access to affordable housing, reducing child welfare costs, and increasing intact families (2).

Rosalie Hall is funded through the Government of Canada, Government of Ontario, the City of Toronto, Catholic charities, fundraising and donations. Rosalie Hall also works in partnership with a number of other organizations to effectively deliver assistance to the public. These other organizations include Aisling Discoveries Child and Family Centre, Humewood House, Massey Centre for Women, Jean Tweed Centre, Scarborough Agencies Sexual Abuse Treatment Program, Scarborough Housing Help Centre, District and Toronto Catholic District School Boards, Toronto Public Health, Psychiatry and Treatment services in cooperation with The Scarborough Hospital, Tropicana Youth Services, YWCA of Greater Toronto Family Support Centre, Uninsured Family Medicine Clinic of The Scarborough Hospital and Toronto Children's Aid Society.

As you enter Rosalie Hall, a multidisciplinary team of smiling faces is prepared to greet you. All of the volunteers and staff encountered at Rosalie Hall are working towards the same goal of providing resources and skills in order to improve the lives of young mothers and their children. In the day school program, during the breaks between classes, the halls are filled with young women smiling and gossiping with each other; very much similar to any other high school. On overhearing their conversations, however, you learn more about the great responsibility these women face in raising young children. They may be talking about the imminent birth of a child,

a cold their baby is suffering from or what is on sale this week at the grocery store. Such conversations are not commonplace at other high schools and reflect the responsibilities these young women bear. At Rosalie Hall these women are given a great deal of support. Moreover, the opportunity for these women to confide in one another is crucial, as previous friends are often no longer around for them. Rosalie Hall allows these young women to go to classes while their children are left in care just down the hall from where they are learning. These women are also assigned clinical case workers who are available to meet the individual needs of the women and provide support and find resources as needed. In sum, Rosalie Hall is a place of respite from the day to day struggles these women face.

Issue Definition

In 1986, The Ottawa Charter for Health Promotion recognized shelter (housing) as a basic prerequisite for health (3). Furthermore, the Jakarta Declaration of 1996 listed housing as an important determinant of health (4). This determinant is of significant importance to clients at Rosalie Hall because many clients are faced with housing insecurity. Housing insecurity is defined by a lack of affordability, suitability and adequacy of a home. A lack of affordability refers to when families spend more than 30% of their gross annual income on their housing. Suitability is not satisfied when families live in overcrowded conditions. An inadequate home may lack bathrooms or require significant repairs (5). Housing insecurity has surfaced across Canada, specifically in Toronto, as a result of decreased social assistance and social housing that has not been remedied. To compound these problems, affordable rental housing is not available from the private sector. This has resulted in a marked increase in homelessness, lack of

affordable rental housing, and emergency shelter use. Housing insecurity has negative implications on health. For instance, when greater than 30% of income is spent on housing, little is left for food and other basic necessities (5). Studies have show that homeless people have a much higher risk for chronic health conditions such as arthritis, asthma, epilepsy and diabetes and are at a greater risk for premature death (5). Overcrowded living conditions put children at a high risk for infectious diseases and adults at a high risk for respiratory diseases (5). The staff at Rosalie Hall are continually attempting to secure adequate housing for all their clients. This is a difficult task in the greater Toronto area due to the lack of affordable housing in safe environments.

An important health concern faced by clients of Rosalie Hall is depression. In the last year, 67% of Rosalie Hall's clients admitted into the day school program were found to be depressed, as indicated by the Beck Inventory Scale at their initial risk assessment (2). Depression has a negative impact on the quality of life of both mother and child. Mothers suffering from depression may withdraw from social situations, have self-destructive or suicidal thoughts, and be unable to cope on a day-to-day basis. In addition, a depressed parent is unable to provide their child with the necessary emotional, social and physical support required for proper development (6). Rosalie Hall has recently implemented a new group which meets on a weekly basis to increase participants' knowledge regarding the contributing factors/symptoms of and treatment for depression. This group assists participants in becoming aware of their own depressive symptoms and helps to develop coping strategies for them.

Interestingly, recent studies have shown an association between the presence of depressive symptoms and an individual's physical environment including housing. For example, negative neighborhood characteristics including vacant housing and vandalism were shown to predict depressive symptoms in residents (7). Another study has shown an increase in depression in men who live in institutions compared to houses (8). A further study has shown an increase in maternal depression in women living in damp and cold housing (9). Another study has shown that poor quality built environments in New York City were associated with a greater likelihood of depression (10). Therefore, it is of interest to staff at Rosalie Hall if specific housing conditions are associated with depression in their clients.

Due to the serious nature of studying depression as a health outcome and the requirement of further training to assess and treat depression, this study took one step back to investigate a risk factor in the development of depression. It has been shown that individuals who have a decreased mental health well-being are at risk for mental health issues such as depression (11). Well-being, or positive health, can be defined as consisting of those physical, mental and social attributes that permit the individual to cope successfully with challenges to health and functioning. With regards to positive mental health, four characteristics help to define well-being: coping, self-esteem, mastery and sense of coherence. Coping is the ability to deal with and attempt to overcome problems and difficulties. Self-esteem refers to a general sense of self-worth as a person. Mastery measures the extent to which individuals feel their life chances are under their own control. Sense of coherence refers to a perspective that events are comprehensible, challenges are manageable and life is meaningful (11). Due to the fact that those who exhibit low

mental health well-being characteristics are at risk for depression, it is of interest to determine whether housing conditions play a role in mental health well-being.

In summary, based on literature research of adolescent mothers, there are two areas of importance for this population: 1) obtaining adequate housing and 2) the prevalence of depression. These are also two areas that Rosalie Hall has supportive programs in place to address. Further, the literature has shown a relationship between housing inadequacy and the occurrence of depression. One of the risk factors for depression is a decrease in mental health well-being which consists of coping, self-esteem, mastery and sense of coherence. Therefore, the following research question has been proposed:

What is the impact of housing on mental health well-being in adolescent mothers serviced by Rosalie Hall?

Prior to the study it was hypothesized that adolescent mothers who self-report inadequate housing will have low mental health well-being in comparison to those that self-report adequate housing conditions. A subset of the clients at Rosalie Hall, adolescent mothers, were used in the study to represent adolescent women. The clients at Rosalie Hall come from all areas of the greater Toronto area and are typically under the age of 21.

Methodology

Health Outcome – Mental Health Well-being

Mental health well-being was assessed in participants for this study using a selection of questions from the National Population Health Survey (NPHS) administered by Statistics Canada.

Questions assessing coping were obtained from the 1996-1997 NPHS. Questions assessing self-esteem, mastery and sense of coherence were obtained from the 1994-1995 NPHS. A total of 28 questions were included on a questionnaire to assess mental health well-being. They were scored using Likert-type relative scales with a combination of all number responses and all word responses

Determinant of Health – Housing

The housing status of the participants in this study was assessed using a series of questions derived from studies that looked at the association between depression and housing (7-10). Six demographic questions were formulated to determine where the participant lived, the type of housing they lived in, the number of people in the household, and the number of bedrooms and bathrooms in the house. Nine questions asked the participant to select from a list of positive and negative characteristics of their home. Two opened ended questions were asked to obtain further information of the participant's home that they felt was important.

Data Collection

This cross-sectional observation study was conducted at Rosalie Hall, which is located at 3020 Lawrence Avenue East, Scarborough, Ontario. Participants were recruited from Rosalie Hall's day school program in the month of March 2006. Clients that met the inclusion criteria for

participation - i.e. were current clients of Rosalie Hall, voluntarily give consent to participation in the study, were under the age of 21, and were mothers – were invited to complete a five page questionnaire which included the housing questions and the selection of mental health well-being questions from the NPHS. This resulted in a convenience sample. The questionnaire was completed independently by participants with the availability of assistance for clarification. The questionnaire took approximately 10 minutes to complete.

The questionnaire was chosen as a measurement tool to allow for standardization of data collection, to maximize the number of participants, and to obtain data in a cost effective and efficient way. The chosen methodology may have had limitations. The questionnaire was written in English at Flesch-Kincaid grade level 6, which some participants may have found difficult to understand. Moreover, the requirement of filling out a questionnaire may have deferred clients at Rosalie Hall from participating in the study. Furthermore, the recruitment of participants was from a group of clients that had been obtaining services from Rosalie Hall, which addressed both mental health needs and housing. In other words, they were receiving beneficial treatment already, which may have skewed results.

Data Analysis

Upon completion of the data collection, the findings were entered into an excel database to allow for quantification of the data. Responses to the mental health well-being questions were summed out of a score of 10 for coping, 30 for self-esteem, 35 for mastery and 91 for sense of coherence, equaling a maximum score of 166 for mental health well-being. A higher score equated to a higher mental health well-being assessment. High scores for coping were defined as 8 or greater

on a scale of 2-10. High scores for self-esteem were defined as 25 or greater on a scale of 6-30. High scores for mastery were defined as 29 or greater on a scale of 7-35. High scores for sense of coherence were defined as 78 or greater on a scale of 13-91 (11). These cut points were based on peaks in the distribution (approximately the 70th percentile) of scores from the NPHS (11). This data analysis method was chosen to repeat the analysis Statistics Canada made on the NPHS data obtained at the national level.

Demographic housing data was tabulated in the excel database including type of housing arrangement, type of housing style, number of people in household, number of bathrooms and number of bedrooms. Positive housing attributes – including comfort of home, availability of community resources, temperature of home, light in home, space of home and privacy of home – were totaled out of 21. Values of 15 and above were categorized as having high positive housing attributes and values of less than 15 were categorized as having low positive housing attributes. Negative housing attributes – including lack of comfort of home, criminal activity in neighborhood and lack of space and privacy – were totaled out of 15. Values of 6 and above were categorized as having high negative housing attributes and values of less than 6 were categorized as having low negative housing attributes. Positive total value minus negative total value was calculated totaling a scale of 21 to negative 15. Values of 12 and above were categorized as a positive housing environment and value below 12 were categorized as a negative housing environment. The data analysis for housing scoring had a significant limitation on the overall impact of the study as the scoring system has not been validated. The score cut points were chosen based on results found regarding housing in previous literature.

Initially, the proposal was to use a chi-square test to determine if the variable of housing attribute (type of housing arrangement, type of housing style, positive housing attributes, negative housing attributes and positive housing environment) was associated with the variable of mental health well-being (coping, self-esteem, mastery, sense of coherence). However, due to frequency values of fewer than five, the Fisher's Exact Test was used to determine if there was a statically significant association in the data.

Results

Table 1: Demographic profile of study participants recruited from Rosalie Hall in March 2006

Variable	Result
Respondents	18
Age (mother)	18.4 +/- 1.3 years
Age (Child)	11.2 +/- 6.3 months
In home less than 1 year	83%
Planning to move within 6 months	44%

Table 2: Housing Demographic profile of study participants recruited from Rosalie Hall in March 2006

Variable	Result
<i>Type of housing arrangement</i>	
Independently (rented)	12
With parents (rented)	6
<i>Type of housing style</i>	
House	6
Apartment	12
Number of residence in household	3.2 +/- 1.8
Resident to Bedroom ratio	1.7:1
Resident to Bathroom ratio	2.6:1

Table 3: Housing Attributes self-reported by study participants recruited from Rosalie Hall in March 2006

Attribute	Numerical Response	% reporting high
Positive Housing Attributes	14.3 +/-3.9 (/21)	50%
Negative Housing Attributes	4.2 +/- 2.7 (/15)	33%
Positive Housing Environment	10.1 +/- 5.1 (/21)	55%

Table 4: Mental Health Well-being scores of study participants recruited from Rosalie Hall in March 2006

Characteristic	Numerical response	% reporting high
Coping	6.9 +/- 0.7 (/10)	22%
Self-esteem	24 +/- 3.9 (/30)	56%
Mastery	24.3 +/- 4.7 (/35)	17%
Sense of Coherence	55.1 +/- 6.8 (/91)	0%

Table 5: Percent high Mental Health Well-being scores from study participants recruited from Rosalie Hall in March 2006 compared to published Canadian data

	Population	Coping	Self-esteem	Mastery	Coherence
Canada total female*	12168	n/p**	49	20	28
Canada total male	11780	n/p	49	22	29
Canada age 18-19 female	342	n/p	42	18	#
Canada age 18-19 male	469	n/p	40	22	12
Rosalie Hall	18	22%	56	17	0

*Canadian data from 1996 (11) **n/p = date not published

#data suppressed due to high sampling variability

Table 6: Statistically Analysis to determine if there is a relationship between mental health well-being and housing in study participants recruited from Rosalie Hall in March 2006

Housing Characteristic		Mental Health Well-being Characteristic								
		Coping			Self-Esteem			Mastery		
		Low	High	Total	Low	High	Total	Low	High	Total
Where	Independently	10	2	16	5	7	12	9	3	12
	With Parents	4	2	6	3	3	6	6	0	6
	Total	14	4	18	8	10	18	15	3	18
		p=0.57			p=1			p=0.51		
Type	House	5	1	6	2	4	6	5	1	6
	Apartment	9	3	12	6	6	12	10	2	12
	Total	14	4	18	8	10	18	15	3	18
		p=1			p=0.64			p=1		
Positive attributes	Low	6	3	9	3	6	9	9	0	9
	High	8	1	9	5	4	9	6	3	9
	Total	14	4	18	8	10	18	15	3	18
		p=0.58			p=0.64			p=0.20		
Negative attributes	Low	11	1	12	7	5	12	10	2	12
	High	3	3	6	1	5	6	5	1	6
	Total	14	4	18	8	10	18	15	3	18
		p=0.08			p=0.15			p=1		
Positive Environment	Low	7	3	10	4	6	10	9	1	10
	High	7	1	8	4	4	8	6	2	8
	Total	14	4	18	8	10	18	15	3	18
		p=0.59			p=1			p=0.56		

Note: Fisher's Exact Test used for statistical analysis

Table 1 presents the demographic data of the participants involved in the study. The study recruited participants from the day school program during the month of March 2006. All of the clients at Rosalie Hall who were in the day school program and were eligible to participate in the study, agreed to participate. This resulted in 18 completed questionnaires. All 18 questionnaires were filled out to completion with no questions left unanswered. The average age of the participants was 18.4 years with a standard deviation of 1.3 years. The average age of their child was 11.2 months with a standard deviation of 6.3 months. Fifteen of the participants (83%) had lived in their current home for less than one year. Eight of the participants (44%) were planning to move from their current home within the next six months.

Table two describes the demographic profile of the determinant of health (housing) that was self-reported by the participants. This demographic data was obtained to determine the suitability (i.e. overcrowding conditions) and adequacy (i.e. lack of bathrooms) of their housing. All 18 participants lived in a rented, as apposed to owned, housing arrangement. Twelve participants lived independently, while the remaining six lived with parents or other family. Six participants lived in a house which categorically included both detached and multiunit houses. The remaining twelve lived in an apartment, including both high and low rise apartments. The same participants that lived with parents or other family (total of 6) were not the same participants that lived in houses (total of 6). There was an average of 3.2 residents living in each of the households, with a standard deviation of 1.8 residents. The number of bedrooms to residents was one bedroom for every 1.7 residents. The number of bathrooms to residents was one bathroom for every 2.6 residents.

Table three presents both the positive and negative housing attributes self-reported by the participants in this study. Twenty-one positive attributes were presented which included comfort of home, location of home, temperature of home, light in home, space and privacy of home. The average number of positive attributes reported by participants was 14.3 with a standard deviation of 3.9. Nine out of the 18 participants (50%) scored 15 or higher and, as such, were categorized as having high positive housing attributes. Fifteen negative attributes were presented which included safety of home, crime in neighborhood, inappropriate temperature of home, lack of light in home, difficulties with insects in home, and lack of space and privacy of home. The average number of negative attributes reported by participants was 4.2 with a standard deviation of 2.7. Six out of the 18 participants (33%) scored six or higher and were therefore categorized as having high negative housing attributes. The average number of positive environment score calculated was 10.1 with a standard deviation of 5.1. Ten out of the 18 participants (55%) scored 12 or higher and were therefore categorized as living in a high positive housing environment. It is important to note that the determination of high versus low positive and negative housing attributes has not been validated; therefore, this could have resulted in some inaccuracies in the data.

Table four presents the assessment of mental health well-being of the participants. The average score for coping out of 10 was 6.9 with a standard deviation of 0.7. High scores were found in four participants (22%). The average score for self-esteem out of 30 was 24 with a standard deviation of 3.9. High scores were found in ten participants (56%). The average score for mastery out of 35 was 24.3 with a standard deviation of 4.7. High scores were found in three

participants (17%). The average score for sense of coherence out of 91 was 55.1 with a standard deviation of 6.8. High scores were not found in any of the participants (0%).

Table five compares the mental health well-being scores from the participants to data published by Statistics Canada following the National Population Health Survey. Statistics Canada divided data into various categories including total Canada female, total Canada male, Canada age 18-19 female and Canada age 18-19 male. Similar scoring cut points as describe previously were used to define a high score for the mental health well-being characteristics. Unfortunately, no data was published regarding coping scores by Statistics Canada. High self esteem was reported in 56% of participants from Rosalie Hall. This is higher than the percent high self esteem scores from the four Canadian populations of total female (49%), total male (49%), age 18-19 female (42%) and age 18-19 male (40%) (11). It is encouraging that this value is high from Rosalie Hall, but it can not be determined if this value is significantly different than the previously published data due to the small sample size from Rosalie Hall. High mastery was reported in 17% of participants from Rosalie Hall. This is approximately equivalent to the scores from the four Canadian populations, total female (20%), total male (22%), age 18-19 female (18%) and age 18-19 male (22%) (11). High sense of coherence was reported in 0% of participants from Rosalie Hall. This is significantly lower that the percent high sense of coherence scores from total female (28%) and total male (29%) (11). Canada age 18-19 male reported a lower percent high sense of coherence in the population at 12% (11). It is of great interest that the percent high sense of coherence score for Canada age 18-19 female was suppressed due to variability of the NPHS data (11). Therefore, it cannot be determined if the result from Rosalie Hall is different from what was determined from the NPHS for the Canadian population of a similar age.

Table six presents the association between the mental health well being characteristics, the participants scoring of either high or low, and the housing characteristics described previously. Sense of coherence was not included in the data analysis as none of the participants scored a high value. Using Fisher's Exact test, the two categories were compared to determine if there was a statistically significant association. In the fifteen different calculations comparing housing characteristics (where, type, positive attributes, negative attributes and positive environment) to the mental health well-being characteristics (coping, self-esteem and mastery) no statistically significant associations were found. Therefore, we are unable to reject the null hypothesis in favor of the alternative hypothesis that housing characteristics effect mental health well being in adolescent mothers at Rosalie Hall.

Conclusions and Recommendations

In summary, housing conditions and mental health well-being were assessed in a group of 18 adolescent mothers from Rosalie Hall. All of the participants were living in either a house or an apartment. One third of the participants reported having high negative attributes with respect to their housing, while approximately one half reported living in a high positive housing environment. The prevalence of high mental health well-being characteristics such as self-esteem and mastery were approximately at national levels, while high sense of coherence fell below the national prevalence level. There was no statistically significant association found between housing attributes and low versus high mental health well-being characteristics.

The conclusions that can be drawn from the study results are minimal due to various limitations in the study. These limitations included a small sample size, the participant's prior involvement with Rosalie Hall, the invalidated housing questionnaire used, and the short length of time the participants had lived in their current housing situation. See below for descriptions of these four limitations.

First, a sample size of 18 lacks sufficient power to determine statistical significance of the association between the two variables, housing and mental health well-being. Therefore, it is possible that a type two error was made in accepting the null hypothesis when the alternative hypothesis is true. This means that we accepted the null hypothesis that housing does not affect mental health well-being in adolescent mothers; however, the alternative could be true, housing does affect mental health well-being in adolescent mothers. In preparing for the study, it was thought a higher sample size could easily be obtained because Rosalie Hall serves a large population of adolescent mothers. However, obtaining ethics approval was significantly delayed which shortened the time allotted for data collection. In addition, at the time of data collection, the day school program (where the participants were recruited) consisted mainly of pre-natal women as apposed to post-natal women. Therefore, the majority of the women did not meet the inclusion criteria.

Secondly, all of the participants in the study had previously been involved with various programs at Rosalie Hall. As mentioned in the introduction, a previous in-house study at Rosalie Hall reported that 67% of clients were classified as depressed using the Beck Depression Inventory at their initial risk assessment. These were at risk women who had yet to have involvement with

some of the programs at Rosalie Hall, and it was these women that the research question was developed for. However, the participants in this study had been involved with Rosalie Hall and many of their initial risk factors may have already been addressed by the staff and services at Rosalie Hall. Two programs that participants in this study may have participated in were the housing program, which may have helped them find adequate housing, and a depression group, which addresses coping skills and lack of mental health well-being. In addition, the general support from Rosalie Hall felt by the participants in this study may have improved their overall mental health well-being.

Thirdly, the questionnaire used to obtain housing data from the participants was prepared for this study based on a literature review of housing effects on mental health. Cut points for high versus low positive or negative housing attributes were chosen arbitrarily based on this literature review. In the initial study design, it was thought this was appropriate and would be able to distinguish between adequate and inadequate housing. However, the raw scores for the housing attributes fell within a small range and it is hard to determine if those that fell at the higher end had different living conditions than those that fell at the lower range. In the future, it may be more appropriate to use a previously validated questionnaire in obtaining data about housing.

Fourthly, 83% of the participants had been living in their current living conditions for less than one year. Therefore, many of the questions about housing, such as temperature in summer and winter, were not appropriate as some participants had not lived in their current homes for these seasons. In addition, the participants housing may not have been able to have an effect on the mental health well-being of the participant because they had not lived there long enough.

Due to the limitations of the study the results are inconclusive and therefore insufficient to determine the relationship between housing and mental health well-being in this population. However, based on some of the results, recommendations for a future study can be made and recommendations for staff at Rosalie Hall can be made.

It would not be appropriate to continue this study and merely increase the sample size due to the limitations of the study listed above. It is my recommendation that in future studies the issue of a link between housing and depression be further examined, in order to truly appease the needs of Rosalie Hall. Moreover, it is suggested that a larger sample size be recruited, that the recruitment of and questionnaire of the participants be completed prior to their involvement with the resources Rosalie Hall provides, that the inclusion criteria to be expanded to include both pre-natal and post-natal clients, and that depression be specifically addressed with a tool such as the Beck Depression Inventory. Results from a future study would also provide more appropriate conclusions and more appropriate recommendations could be made to the staff at Rosalie Hall.

The results from this study show that Rosalie Hall is doing an excellent job at securing adequate housing for their clients and is addressing mental health well-being in the various programs they have. It is specifically recommended that Rosalie Hall continue their housing programs and continue the depression group, which can help to teach coping skills to clients that are at risk for the development of depression. The result regarding the high prevalence of low sense of coherence in the participants is a characteristic that does not need to be specifically addressed. The results from the NPHS survey showed the increased prevalence of high sense of coherence

with age (11). As an individual ages, they increase their knowledge and have life experiences that can help them meet challenges that they face and comprehend more of what is occurring in an their environment. Therefore, it is assumed that sense of coherence will increase as these participants age. The young mother's choice to be involved with the programs at Rosalie Hall shows aspects of sense of coherence. They have determination, motivation and drive to obtain the skills necessary to provide for their children and to make a better future for themselves.

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