

M.A. Thesis- M. Brydges; McMaster University- Health and Aging

OLDER ADULTS EXPERIENCES WITH COMMUNITY PARAMEDICINE

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A CASE STUDY OF OLDER ADULTS EXPERIENCES WITH A NOVEL
COMMUNITY PARAMEDICINE PROGRAM

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A Thesis Submitted to the School of Graduate Studies in Fulfillment of the Requirements
for the Degree Master of Arts

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McMaster University MASTER OF ARTS (2014) Hamilton, Ontario (Health, Aging and
Society)

TITLE: A case study of older adults experiences with a novel community paramedicine program AUTHOR: Madison Brydges, M.A. (McMaster University) SUPERVISOR: Dr. Margaret Denton and Dr. Gina Agarwal. NUMBER OF PAGES: 93.

ABSTRACT

Introduction: An increase in the population of older adults is a growing public health concern. Health promotion and prevention programs provide a myriad of physical, social and psychological benefits for older adults, and recent health care trends has seen the emergence of Emergency Medical Services (EMS) in providing these programs. However, to date little is known about these programs, commonly titled, “community paramedicine”.

Methodology: This study utilized a mixed methods, interpretivist qualitative approach to understand older adults experiences with a novel community paramedicine program, the Cardiovascular Health Awareness Program by EMS (CHAP-EMS), operating in a subsidized housing building in Hamilton. Participant observation and semi-structured interviews were conducted with participants of the program in addition to surveys of non-participating building residents. Data was analyzed using thematic analysis.

Results: Six themes arose from the participant data including: filling the health care gap; motivators to attend; relationships between the paramedics and participants; social connectedness; the added value of EMS skills; and changes due to the program.

Conclusion: Community paramedicine programs may provide older adults with access to social support, opportunities for social engagement and a reliable environment to discuss their health. However, barriers such as conflict between residents, conflicting beliefs of the program, and language barriers may impede participation in this initiative if left unaddressed.

ACKNOWLEDGEMENTS

First, I would like to thank my supervisors, Margaret Denton and Gina Agarwal, for their unwavering support over the past year. As this thesis has evolved, your knowledge and expertise have inspired and challenged me, and without you, this would not have been possible. I would also like to thank Gavin Andrews for being a member of my thesis committee and providing valuable insights into the completion of this project.

Next, to my family (B.B., C.B., T.B., B.B., G.G., S.S.), who had to endure hearing more about this than they probably ever wanted to, and to my more well spoken and educated sister for teaching me how to go from multiple choice tests to writing a coherent and publishable paper.

Lastly, my research interests stem directly from my experiences as a paramedic, and the mentors who have effected me along the way. I would like to dedicate this work to JC, the proof that just one person can make a difference.

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Declaration of Academic Achievement

The primary researcher in this project was Madison Brydges. Dr. Gina Agarwal was the second coder in the data analysis process, and assisted throughout the project. Dr. Margaret Denton also assisted with triangulation of the research findings and reviewing the research and writing process.

INTRODUCTION

Due to an aging population, increasing levels of disability and poor health in later life is a growing public health concern (Lachman & Agrigoraei, 2010). This has led to a large body of literature on exploring and understanding the determinants of health for older adults. Health promotion and prevention programs are commonly used public health tools aimed at improving the health and wellbeing of the aging population (Morley & Flaherty, 2002; Lachman & Agrigoraei, 2010). It is now acknowledged that health promotion initiatives provide a number of psychological, physical, and social benefits for older adults (Hurdle, 2001; Lachman & Agrigoraei, 2010).

Numerous identifiable factors may impact individuals wellbeing as they age, including socioeconomic factors such as education, income, and occupation (Grundy & Sloggett, 2003) and lifestyle factors such as being overweight, smoking, or exercise habits (Minkler, Schauffler & Clements-Nolle, 2000). In addition, socio-demographic and socio-psychological factors, including social network size and social support, have also been found to have impacts on older adults health and wellbeing (Grundy & Sloggett, 2003; Umberson & Montez 2010). Health promotion and prevention programs, while often designed to target behavioral or medical issues (Minkler, Schauffler & Clements-Nolle, 2000) also have important effects on individuals social resources, such as feelings of support and social engagement (Hurdle, 2001; Umberson & Montez 2010) and can be protective against a wide range of health issues (Lachman & Agrigoraei, 2010).

While community health programs are often provided by numerous different health

agencies, due to recent health care system pressures, Emergency Medical Services (EMS) have become more involved in community health (Bigham et al., 2013; Shah et al., 2010). These initiatives have been loosely defined as “community paramedicine” programs (Bigham et al, 2014). While EMS traditionally have not been used to address community health concerns, there is evidence to suggest that paramedics have the expertise to address community health concerns, and have the capability to be involved with managing older adults long term social and medical needs in addition to providing acute medical care (Kue et al, 2009; Shah et al, 2010).

Although paramedics role in operating a health promotion programs is relatively new, there is some empirical evidence that exists on the success of these programs. However current research is primarily quantitative (Bigham et al., 2013) and is limited in the Ontario context. Given the new appearance of these programs and the lack of literature on this topic, there is still a considerable gap in the literature understanding paramedics in a community health role, and even less on how paramedics may effect older adults social resources, such as engagement and support. Given the impact of social resources on health and well being, it is important to understand the impact of a community health program run by paramedics on older adults lives.

To fill this gap in the literature, this study explored residents experiences and perceptions of a community health promotion program run by paramedics and asked: what are older adults experiences and perceptions of a community health program? To explore older adults perceptions and experiences with a community health program, a case study of the Community Health Assessment Program through EMS (CHAP-EMS), which is currently being delivered by paramedics in a subsidized seniors housing

residence in Hamilton, Ontario, was conducted. To obtain a thorough understanding of residents experiences interacting with the program, mixed methods were used, including observational periods, semi-structured interviews, and survey data.

While conducting preliminary field work for this study, it became apparent that the social dynamic of the program and the relationships between the paramedics and participants in the program were more robust than first anticipated. This led to an interest in understanding individuals experiences and perceptions of the program and how the program had changed their social relationships and feelings of support. Thus observing the social dynamics of the program, complemented by interviews and survey data, were ideal methodological choices for this study.

LITERATURE REVIEW

To understand the perceptions and experiences of older adults in a community health program run by EMS, two key areas of research will be explored. First, a review of the literature on the health promotion programs targeting older adults and specifically the importance of understanding social isolation, social capital and support, and social connectedness amongst older adults will be discussed. Second, while the primary focus of this thesis is on participants of the CHAP-EMS program, in order to develop a holistic understanding of the results of the program, it is also important to take into consideration the role of the paramedics delivering the program. Thus, to provide a background on EMS in this new role, the literature on paramedics role in providing community health will also be discussed.

Health promotion and wellbeing of older adults

Researchers have documented the role of health promotion and prevention programs in reducing health care costs, which have also been shown to improve overall community health (Hurdle, 2001; Cattan et al., 2005). Health promotion and prevention programs are important community resources, as they provide vital services while also connecting individuals to medical and social community resources (Shah et al. 2010; Minkler, Schauffler & Clements-Nolle, 2000). These initiatives are becoming increasingly important as health promotion programs have been demonstrated to be important sources of social support for older adults, particularly with high risk groups and those who are uninformed about how to access community resources (Hurdle, 2001; Gorman & Sivaganesan, 2007). Health promotion programs targeting older adults have been found to be difficult to study due to the wide range of complex problems older adults may face and their shorter life expectancy in which to measure change (Buijs et al, 2003). In addition, it may be difficult to have effects on behavior change as older adults habits may have existed for a larger period of time.

The importance of social resources in understanding health and wellbeing is an important area of research studied across many disciplines, and targeting these needs through health promotion may be particularly valuable for older adults (Boen et al., 2012; Blozik et al., 2008; Dickens, Richard & Campbell, 2011). To understand the role of health promotion programs on older adults social resources, three important concepts will be discussed: social isolation, social capital and support, and social connectedness.

Understanding social isolation, social capital and support, and connectedness

Social Isolation

Social isolation is a term that has many definitions and is used in a variety of ways in the literature. This has created difficulties when examining the literature as no consistent definition of social isolation is being used by researchers. Social isolation has been defined as “the lack of integration of individuals and groups into the wider social environment” (Victor et al, 2000, p.409). Social isolation is an absence of meaningful and sustained communication or having minimal contact with a community or family (Victor et al, 2000; Dickens, Richard & Campbell, 2011). The subjective feeling of loneliness, while a related concept, is different from the objective state of social isolation, measured by the size and frequency of social network members (Cornwell & Waite, 2009). A more multi-dimensional definition of social isolation that will be used in this research includes both the objective assessment of social isolation, and a subjective judgment, such as quality or perceived value of emotional, instrumental, and informational support (Dickens, Richard & Campbell, 2011).

Social isolation is an important public health concern that is associated with poorer health status and health related quality of life amongst older adults (Dickens, Richard & Campbell, 2011). Social isolation is a phenomenon that has long been explored amongst gerontologists. This is in part because older adults face unique challenges that result in higher levels of social isolation, such as retirement, transportation issues, bereavement, loss of loved ones, minimal contact with family or friends, living alone and worsening or poor health (Dickens, Richard & Campbell, 2011;

Cornwell & Waite, 2009). It has been estimated that upwards of 7-17% of older adults are socially isolated. Older adults are especially more vulnerable to becoming socially isolated as many changes older adults face involve a change in their social roles and thus may increase their need for social resources, such as an increase in support (Cornwell & Waite, 2009).

Health promotion programs can both directly target social isolation, or have indirect effects social isolation by increasing access to social resources, such as programs targeting activities such as social activities or support (Minkler, Schauffler & Clements-Nolle, 2000; Umberson, 2010). In their systematic review of current health promotion programs targeting older adults, Dickens, Richard & Campbell (2011) found varying success in public health interventions targeting social isolation. Overall, group interactions were more effective at addressing social isolation than one-on-one programs. Further, programs that targeted directly social activity and support were also more likely to be successful in reducing social isolation. From their research it is clear that targeting social isolation as a community health issue is complex and involved multiple factors, many of which are not fully understood.

These results were also emphasized by Raymond et al (2013), who reviewed interventions targeting the social participation of seniors, and in particular interventions addressing problems such as social isolation. They found that the interventions addressing these themes are extremely diverse, however consistent themes arose such as the interventions should be located close to older adults living arrangements; the interests, culture and beliefs of older adults should be considered in the program scheme; and lastly interventions should provide a support the meaningful development of older

adults social relationships and roles. The next section will build on these themes by exploring literature on social capital and social support, which can often buffer and alleviate social isolation amongst older adults.

Social capital

Social capital is an important concept to consider when discussing how older adults social networks influence the support available to them. While social capital has been defined in many ways, and considerable debate exists on how it should be defined and measured (Carpiano, 2006), a broad definition refers to social capital as the “array of social contacts that give access to social, emotional and practical support” (Gray, 2009, p.6). Thus, support is an outcome of both the quality and quantity of individuals social networks. According to Putnam’s commonly used definition of social capital (2000), the concept refers to a public good that resides in the shared values and mutual trust of the members of a community and is available to them all. Social capital is viewed as a collective resource, which emphasizes that social contacts bridge social capital for individuals and can be measured by social participation, networks and cohesion within communities or neighborhoods.

In addition, Bourdieu’s (1997) concept of social capital adds that social capital is not just a public good but will vary amongst individuals, as they may choose who to associate with, who may then be used to obtain support. However the support available to the person is a collective resource shaped by power relationships, economic, cultural and symbolic factors such as their health, neighborhood, environment, barriers, class and gender. These factors will effect whether they individuals networks have the time or

resources to provide support.

In a recent study regarding the relationship between social capital and neighborhood cohesion for community dwelling older adults, Cramm et al (2012) found that social cohesion and social capital amongst neighbors lead to high levels of wellbeing and social organization, which included an increased access to instrumental support (such as assistance with transportation and groceries). In addition, although single and lower income older adults reported lower wellbeing, these effects were mitigated by an increased access to neighborhood services, social capital, and social cohesion. A possible mechanism to explain this relationship is that the perceived presence of support increases feelings of self esteem and trust, which may mitigate loneliness or isolation. These results were echoed by Gray (2008) who also found that low neighborhood social capital, such as those living in lower income housing, was associated with lower social support scores. These results have important implications for the importance of both individual social capital (support through direct ties) and neighborhood cohesion (support through indirect ties).

Putnam's concept of social capital is particularly useful when exploring individual's social interactions, and the relationship between their formal and informal social contacts. Thus, understanding the role of social support is an important concept to discuss in this relationship, which will be discussed next.

Social Support

Social support has been hypothesized to be an outcome of social capital (Gray, 2009). The amount of social support available for an individual is an outcome of their

network ties, the quality of relations with others, their availability, and the values and trust placed in them. Social support is influenced by social ties and variables such as gender, class, and housing tenure (Gray, 2009). In the literature, social support is often used as a broad term with many definitions. Social support has been defined as “the social resources that persons perceive to be available, or are actually provided to them, by individuals in the context of both formal support groups and informal relationships” (Cohen, Gottlieb & Underwood, 2000, p.4). A more commonly used definition of social support is simply when social network members provide assistance to one other with the intention of being helpful (Ashida & Heaney, 2008).

As individuals age, many experience a loss of support, which has been linked to depression and poor health and many of these factors result in older adults experiencing a loss of social capital or social isolation (Boen et al., 2012). The type of social support available to older adults has also changed due to changes in family dynamics, such as more older adults grown children are forced to work full time and no longer have the time to take care of their ailing parents (Gray, 2009). Thus older adults may become more reliant on friendships in later life, which also becomes problematic due to worsening health or death. In addition, poor health may impede an individuals ability to reciprocate support, which may also reduce their social contacts and ability to obtain support.

The mechanisms in which social support appears to effect well being have been explored in the literature, and there are several proposed pathways. First, in the direct effect model, the perceived availability of social support can enhance general positive affect, self esteem, feelings of belonging and security, and the individual may be more

likely to engage in healthy lifestyle behaviors (Ashida & Heaney, 2008; Kawachi & Berkman, 2001; Boen et al., 2012). This can occur regardless of other life events.

Second, in the stress buffering hypothesis, it has been proposed that social support may buffer stressful life events as individuals have more options to obtain help from their social network, which can provide the individual with resources to cope with the stressor (Boen et al., 2012). Lastly, it has been hypothesized that social support enhances an individual's ability to control their outcomes, which has been linked to improved mental and physical health (Umberson & Montez, 2010).

Characteristics of Social Support

Social support can be emotional (such as feelings of trust, caring), instrumental (the provision of aid and services), informational (giving advice, suggestions, information) and in the form of appraisal (the person uses the relationship for self evaluation) (Ashida & Heaney, 2008). Social support is measured both objectively (size, density, contact to support network) and subjectively (perceived feelings of support). Social support has been found to be higher amongst individuals with dense and homogenous social networks (Ashida & Heaney, 2008). The characteristics of social networks, such as the size, density, homogeneity, and proximity, are important when understanding their effect on social support. The more individuals interact with their network members, the more likely they are to be sources of support. Social networks provide older adults with opportunities for social engagement and may provide individuals with more resources during stressful life events (Blozik et al., 2008).

Further, the individuals involvement in macro social structures, such as community involvement and involvement in social networks, can enhance the individuals likelihood of obtaining support (Kawachi & Berkman, 2001; Umberson, & Montez, 2010). For example having frequent contact with multiple members of a social network can expose older adults to health relevant information, which could prevent minor problems from progressing.

It is important to note then that having a large social support group does not necessarily mean the individual perceives they are supported. Excessive social support may actually have detrimental effects, as it may undermine older adults ability to be independent and autonomous, or alternatively, the individual can become overly dependent on the supporting individual (Ashida & Heaney, 2008; Kawachi & Berkman, 2001; Cohen, Gottlieb & Underwood, 2000).

Social Support and Health

Studies have examined the effect of social support on wellbeing, mental health, mortality, and adjustment and recovery from diseases (Boen et al., 2012; Cohen, Gottlieb & Underwood, 2000; Umberson & Montez, 2010). Social support has been found to aid in maintaining health and preventing disease among older individuals, and assist older adults in coping with their medical problems (Glass et al., 2000; Blozik et al., 2008; Boen et al., 2012; Umberson & Montez, 2010). Small social networks, few close relationships, and a low perceived adequacy of social support have been linked to depressive symptoms and poor mental health among older adults (Kawachi & Berkman, 2001).

A recent Canadian study further highlights the relationship between support and health. Seniors with low social support were less likely to report positive self perceived health and more likely to be lonely and dissatisfied with life versus individuals who receive high levels of support (Gilmour, 2012). In addition, the study found that social relationships were significantly associated with wellbeing and health, independent of health and other socio-demographic factors.

In addition, social support has been found to be related to gender differences. Women are more likely to report psychological distress than men, maintain relationships, mobilize more social supports during stress, and provide more social support to others than men (Kawachi & Berkman, 2001). Further, widowhood has been found to be more detrimental to men because often men seek support solely from their wives, where women more likely to be strongly linked to children, relatives, or friends (Kawachi & Berkman, 2001).

Social Connectedness

Social connectedness is an additional theoretical framework that can be utilized in examining the role of older adults social lives and their health and wellbeing. Social connectedness, social integration, and social engagement are often used interchangeably in the literature, but for the purpose of this paper the term social connectedness will be used. Social connectedness can be defined as the presence or absence of social ties, and includes a subjective component (Ashida & Heaney, 2008). This includes the size and frequency that individuals interact with their social network (Nicholas et al., 2014). Social

connectedness has also been defined as individuals making social and emotional connections with others and their community (Tomaka, Thompson & Palacios, 2006).

There is evidence to suggest that social connectedness improves self efficacy and control in older adults lives (Glass et al., 2000). One proposed mechanism for this is that social connectedness may improve older adults resilience and help them cope with new life problems, such as the onset of a disease or worsening disability. Further, being socially connected and having strong social networks can help people learn healthy behaviors and new skills that promote a positive lifestyle.

Social connectedness has been found to have important effects on older adults well being and is often used to understand successful aging (Minkler & Fadem, 2002). Social connectedness has been associated with improved physical and mental health and longevity, and it is proposed that social connectedness may buffer against stress or poor health, particularly for those who live alone or are in poor health (Michael et al., 2001). Having a strong social network has also been linked to better physical and mental health and less risk of disability or decline in activities of daily living (Blozik et al., 2008).

Participating in social activities is important in many ways, such as promoting physical and mental health, and providing social contacts (Maier & Klumb, 2005). Using data from the Berlin Aging Study, Maier & Klumb (2005) found that social participation was related to survival for older adults and “with friend” activity was related to a reduced risk of death. Friend support was more frequently rated higher than family support. From their results they conclude that the presence of other people can be enough to have effects on well being, however due to the nature of their study they were not able to comment on the mechanism through which this occurs.

To understand the mechanisms through which social connectedness improved well being, Ashida and Heaney (2008), Cornwell and Waite (2009) and Nicholas et al (2014) examined the impact of social network systems, social connectedness and social support. Ashida and Heaney (2008) found that individuals with dense social network systems and more members, had higher levels of social connectedness. Further, being socially connected, and thus having more contact with network members, was associated with higher levels of perceived support. These findings were echoed by Cornwell & Waite (2009) and Nicholas et al (2014) who found that older adults who were more connected had increased access to instrument support from their network members, and this support was important in coping with stressful life events. However, the authors also found that being socially disconnected was not always associated with perceived isolation, and older adults may not feel isolated even if they have small networks.

The importance of social connectedness for community dwelling older adults has further developed in a recent study which took an ethnographic approach to understand older adults experiences with social connectedness after relocating to a seniors building from their home, which is an often stressful event for older adults (Dupuis-Blanchard, Neufeld & Strang, 2009). They found that even though older adults who live independently in a seniors building may have better health and be more autonomous, relationships within the building were important for their well-being and support. Relationships amongst neighbors are important for older adults as their existing social networks decrease in size and their social contacts change over time. New relationships, such as those with their neighbors, are important in providing a sense of community and belonging, companionship, control, and self efficacy.

Dupuis-Blanchard, Neufeld & Strang (2009) found that daily social encounters were important for creating an attachment to place, which was valuable in many aspects, including making the relocation less stressful. Further, many older residents created relationships that provided them with a sense of security. For example, some had a “buddy system” in place, in which another building resident would look out for their wellbeing and vice versa. They found that older adults were not concerned with having close relationships were their neighbors, but rather cultivated relationships that fulfilled certain needs or goals such as informational or instrumental support. However, neighbor relations are complex, and often easily terminated if the relationship is not reciprocated.

Overall social connectedness, support and isolation are important concepts that have been explored in the research literature. For community dwelling older adults, social resources are important for understanding their health and wellbeing as they age. These concepts provide a framework for understanding residents experiences with a community health program, assist in conceptualizing the indirect effects of a health promotion program on the social relations, social support and social connectedness of residents in a social housing building. Next, this literature review will examine the other key aspect of this study, paramedics role in community health.

Paramedics and Community Health

One such strategy to improve access to available resources in the community involves the use of paramedics as part of a larger primary health care initiative,

frequently referred to as “community paramedicine”. The paramedic community, both nationally and internationally, have recently developed, implemented and continue to expand community paramedicine programs that have paramedics taking on roles in community health (Bigham et al., 2014). Community paramedicine can be described as the management of patients low acuity illnesses and injuries. Community paramedicine programs arose out a myriad of factors including a rising call volume for EMS services, research highlighting that a large majority of patients do not require transport to the emergency department, and difficulties providing health care to rural communities (Bigham et al, 2013).

Studies have highlighted that paramedics are key actors who have the ability to identify the unmet social and medical needs of patients, as well as communicate these needs to other health care providers (Shah et al, 2010; Lerner et al, 2008; Kue et al, 2009). For many older patients, paramedics are often the first, and at times their only point of contact with the health care system (Kue et al., 2009). Further, paramedics have demonstrated capacity in identifying individuals at risk of deterioration in the home and are often well suited to address these concerns and refer them to appropriate community agencies (Mann & Hedges, 2002; Shah et al., 2010). These findings suggest that paramedics are well positioned to address many of the challenges associated with aging at home and access to resources, and can complement other community health organizations who provide care to older adults.

In the only systematic review of community paramedicine initiatives internationally, Bigham et al (2013) identified only eleven studies, including one randomized control trial, on community paramedicine. From their review they found that

community paramedicine programs directly addressed specific population health needs, however the variation in methodologies, interventions, and outcomes of the studies made comparisons between them difficult. However, they conclude that there is evidence to suggest expanded paramedic scope may be beneficial, however there remains great debate on what community paramedicine is, its safety, effectiveness, and program objectives.

EMS in Ontario

It is also helpful to outline some of the challenges EMS is currently facing as this the trend shifts to incorporate community and preventative health. A key concept regarding community paramedicine programs is they recognize that paramedics both respond to patients who do not require acute medical interventions, and that paramedics are frequently in contact with patients who would benefit from their long term medical, psychological, and social needs being addressed (Bigham et al, 2014).

In Ontario, although community paramedicine initiatives have been endorsed by the Ministry of Health, such as in the Seniors Strategy by Dr. Sinha (2012), community paramedicine programs are still not widespread. In Ontario, a few exist, including a paramedic referral program (termed Community Referrals by EMS or CREMS) which is operating in many EMS, a community paramedicine randomized control trial being conducted in York Region, and the CHAP-EMS program. While CREMS programs have existed since 2007, until recently, no research has been conducted on this initiative (Brydges et al, 2014).

The lack of community paramedicine initiatives in Ontario may also be due to issues with funding and “buy in” at an institutional and political level. Although the MOH endorsed community paramedicine in 2012, it was only recently that the MOH granted six million dollars in funding across EMS in Ontario to spearhead community paramedicine initiatives. Thus, while there are potential barriers to the implementation of community paramedicine programs, promising advancements in Ontario may result in community paramedicine, and paramedics role in the provision of community health, becoming more prominent in the coming years.

Bridging the gap

While there is a considerable amount of literature on the social concepts discussed above, little is known about how paramedics may influence older adults’ lives in this respect. Given that the social benefits of health promotion programs are often robust and important for individuals well being, it is important to understand how a health promotion program run by EMS with the goal of targeting physical health may also have an indirect effect, and potentially benefit, the residents’ social relationships and feelings of support. By combining the literature on these two topics, important implications for how older adults experience and perceive a community health program by paramedics will be explored.

Further, as community health initiatives are relatively new within EMS, research on paramedics in this new role is needed. As community paramedicine programs are gathering attention locally, research in this field has direct policy implications. It is

becoming increasingly important to assess the program effectiveness of community paramedicine programs and explore important questions, such as: if these programs are targeting the right demographic: what benchmarks of success of these programs can be used; and if they are the right initiatives to address macro-community health needs. As the population of older adults in Ontario grows, health care system pressures will change and new issues will arise for EMS providers that will result in research in this area being of utmost importance.

Overall, little is known about paramedics' effectiveness in a community health role and their effect on improving older adults' health and well being and the mechanisms through which this occurs. Further, little is known about older adults' perceptions of paramedics in this new role, and how they experience and utilize these novel programs. Thus, the results from this study will have important implications for future community paramedicine programs, as well as provide insight into the social dynamics between paramedics and older adults.

METHODOLOGY

Research Questions

As there is currently little literature on understanding a health promotion program directed at older adults being run by paramedics, this study took a case study approach of the CHAP-EMS program. Taking a mixed-methods approach, this case study sought to understand the perspectives and experiences of building residents both participating and not participating in a community health program. This study addressed four areas of

interest: first, exploring the ways in which older adults utilizing the CHAP-EMS program; second, for participants, how the program has impacted their access to social resources, such as social support; third, how the program has changed social relationships in the building; and fourth, understanding paramedics' role in providing community health in an alternative setting.

Researcher's Background

It is essential in qualitative research to clarify the background of the researcher as it will allow readers to understand how the interpretation of the findings by the researcher was shaped by their prior experiences (Creswell, 2009). The principal field-researcher (MB) is currently employed as a paramedic, however not in the geographical region where the research took place. Her experiences as a paramedic have informed her understanding on a wide variety of health-care related research issues, however the research interest here is strictly limited to the CHAP-EMS program. While the researcher (MB) has an insider view of many elements of paramedic culture and operations, the focus of this study remains on the participants in the CHAP-EMS program. The second coder (GA) is a family physician with a research background in epidemiology, and is the principal investigator of the larger CHAP-EMS study.

Study Design

Following ethics approval from the Hamilton Integrated Research Ethics Board. this case study took a multi-method approach, and combined both participant observation, semi-structured interviews and survey data to understand participants

involvement in the CHAP-EMS program. A case study was the ideal method for this research as it sought to understand a real world case, in which contextual conditions of the case are important (Yin, 2009). Further, to understand peoples lived experiences with the program, taking a holistic, all-encompassing method was ideal.

In this study an interpretivist approach was taken, where the goal was to interpret and understand people's actions and social world from their point of view and in their social world (Bryman et al., 2012, p. 12). This approach emphasizes the meanings individuals place on their actions and the actions of others, which is an appropriate epistemological framework for determining the perceptions and lived experiences of the participants (Creswell, 2009).

Sampling

The sampling strategy included purposive sampling. For the interviews, the inclusion criterion included (i) adults living in the residential building; (ii) currently participating in the CHAP-EMS program. In total, fifteen semi-structured interviews were conducted. For the non-participants, inclusion criteria included (i) adults living in the residential building; (ii) currently not participating in the CHAP-EMS program. In total twenty non-participants were interviewed. In addition, it was of interest to gather data from a wide range of participants, including differences in age, gender, years in the program, attendance to the program and health status.

Observational Period

Observational methods were optimal in order to gain first hand experience with the residents participating in the program in order to observe their involvement in the program. The first few weeks of observation were unstructured to allow time to determine which aspects of the social setting are of interest. This method was ideal for this type of study as little was known about the group of interest, and allowed the exploration of important aspects of the group as they arose (Creswell, 2009). Following the first three weeks of observation, the primary observation was the interaction of residents on-site in the common room where the program was taking place. The one-on-one private interactions with the paramedics (i.e. when getting their blood pressure taken) were not of interest and thus no observational notes were recorded for these interactions.

Following ethics approval, the observational period took place over three months, with the interviews occurring throughout. The group was aware of the researcher's role in the study, and residents who participated in the program were informed that she was a researcher from McMaster University studying the program. All observational notes were recorded, following the periods of observation, and the names of the participants and paramedics were kept anonymous.

Semi-structured Interviews

To contact potential participants for the semi-structured interviews, participants were asked if they wished to partake in an interview while they were attending the CHAP-EMS program. The interviews took place in a private room, or in the participants' homes. Following obtaining consent, all interviews were audio-recorded and transcribed

for analysis. Some demographic variables were collected for the interviews (such as age, gender, number of chronic conditions, and length of time in the program) to ensure a wide range of participants were interviewed.

Using open ended non-judgmental questions and probes, participants were asked to describe and reflect on their experiences in the CHAP-EMS program. An interview protocol and interview guide were used to assist the process. Questions were generated based on the observations taken prior, and piloted for clarity, intent, potential biases, and appropriateness. This allowed the interviewer to practice (e.g., avoiding persuasiveness), adapt, and refine the interview process as necessary (Creswell, 2009). The interview questions were modified based on the results from the first few interviews (Appendix A). Further, as new themes emerged, new questions were generated and followed up with in subsequent interviews. This allowed the researcher to pursue themes as they arose and add depth to the research findings. Interviews ranged from fifteen minutes to up to forty five minutes in length.

Non-participant Interviews

Initially, it was intended to conduct focus groups with the non-participants of the program that reside in the building. Understanding why some residents in the building were not participating in the program was important to gather a well rounded understanding of how the CHAP program was functioning in the building. One hundred and ninety-two focus group invitations were distributed to all non-participants via their mail box. In the invitation, non-participants were asked to partake in a focus group

session to discuss the CHAP-EMS program. Multiple possible dates were given to attend the sessions and participants were asked to RSVP via email or phone.

From the invitation, only two building residents responded. The first, came down to a CHAP-EMS session, however they had no interest in partaking in the focus groups and had just come down to learn about the program. Only one other resident responded to the focus group interview. As a result, a face-to-face semi-structured interview was conducted with her to learn about why she did not participate in the CHAP-EMS program.

Due to the limited success of the focus group invitations an alternate approach to gathering information from the non-participants was used. During a weekly session of the CHAP-EMS program, short surveys were conducted with building residents in the front lobby of the building. The residents were asked first if they participated in the program, and if not, why; second, what they knew about the program; and third, if they would go in the future and why or why not.

Analysis

To analyze the interview and observation data, thematic analysis was used. Thematic analysis is an ideal choice for this type of qualitative research as it allows for flexibility and is applicable to many theoretical paradigms (Braun & Clarke, 2006). Thematic analysis takes an inductive, data driven approach, and allows the researchers to identify, analyze and report patterns within the data (Creswell, 2007). In this study, the codes were created without a coding frame, which allowed the findings to be driven by the underlying ideas and concepts within the data rather than an existed theoretical

framework. In addition, this approach allows researchers to constantly revisit the original data, the coded data, and the analysis to ensure consistency and follow up any new themes that may emerge.

The interviews were conducted over the course of three months to allow for changes in the interview questions and the ability to pursue themes as they arise. The observational period ended when no new themes emerged. Two coders (MB and GA) were used to read through all the data, and code the data by hand. The interviews were first transcribed, and any initial thoughts or ideas were recorded. Next, the data was coded across the data set in a systematic fashion. Following this step, the codes were generated into potential themes and a thematic map of all the themes was created. Following this, the themes were defined, organized categorically, reviewed repeatedly, and re-conceptualized until the final themes were produced. Any inconsistencies between the coders were solved by a joint discussion. Data from the non-participant surveys were also analyzed using thematic analysis.

Reliability and Validity

Reliability of the case study was ensured through the use of verification in the study designs. Verification is the process to ensure reliability and validity, and thus the rigor of a qualitative study (Morse et al., 2002). Verification was assured by systematically and constantly reviewing the data, literature, research question, and analysis to ensure that the study moved forward cohesively. Further, protocols were used in order to maintain consistency in the data collection process, such as interview protocols and an observational procedure.

As new themes and findings arose, new literature was explored and the research strategy was modified to accommodate the new findings into the study purpose. In this study, transcripts were reviewed systematically to ensure they did not contain errors that occurred during transcription. Two coders were used in the analysis process, and frequent meetings were held to discuss the coding process and clarify any disagreements on the codes. Both researchers coded the transcripts independently and came to the final themes based on joint agreement, further contributing to the reliability of the results (Creswell, 2007).

The validity of the study was assured by employing certain procedures during the research process. First, the bias of myself as a researcher was discussed. As this study contained participant observation as well, detailed notes of the observational periods were kept. In addition, three months were spent in the field taking observational notes. This allowed substantial time to develop an in-depth understanding of the dynamics of the program and give credibility to the findings (Creswell, 2007).

RESULTS

The setting of CHAP-EMS: Community paramedicine in subsidized housing

First, it is of interest to outline several features of the building in which the CHAP-EMS program operated in. The building is a subsidized seniors housing building, and has been identified by City Housing Hamilton as having a large EMS call volume. There are 289 residents living in the building. Within the building several community services exist, including an exercise program, a diabetes clinic and a wellness program. In

addition there is an unofficial resident run seniors building association and garden association. This association is “unofficial” as before the implementation of the program the building association folded due to problems between building residents and the association members.

Introduction to the CHAP-EMS Program

The CHAP-EMS program is a multifaceted cardiovascular and diabetes community health prevention program delivered by modified paramedics to residents living in a subsidized housing building in Hamilton. The program is delivered on a weekly basis to building residents, who can have their blood pressure and blood sugar tested by the paramedics in a common room in their residential building. The program is the first of its kind operated by paramedics and has been in the building for over two years. The paramedics are solely there to run the program and they do not leave to respond to emergency calls while at the building.

The CHAP-EMS program is currently being evaluated in the study, *Community Health Assessment Program through Emergency Medical Services (CHAP-EMS) for Older Adults Living in Subsidized Housing*. The current research on the CHAP-EMS program is evaluating the following: 911 call volume to the building; access to primary health care providers; referrals to CCAC; and emergency room usage.

The CHAP program is free and available for all residents in the building to use. Over the course of one year there were 1,365 participant visits to the intervention session by 79 participants. Participants were 68% female, 90% had family doctors and 87% were over the age of 65.

Participant Observation and Semi-Structured Interview Themes

The participant observation sessions began in March of 2014 and ended June 2014. In total ten sessions were attended. Each session ran for eight hours, once a week. During this period, fifteen semi-structured interviews were conducted with building residents. The interviews ranged from fifteen to forty five minutes in length. Nine females and six males were interviewed, with ages ranging from 63-89. Only three participants lived with a spouse. Twelve participants had hypertension, and there were multiple participants with chronic health conditions (such as COPD, diabetes). The remainder of participants had minor health problems. All participants had at least one medical problem. Thirteen participants had been attending the program for more than two years.

Six themes emerged from the participant observation and semi-structured interview data: filling the health care gap; motivators to attend; relationships between the paramedics and participants; social connectedness; the added value of EMS skills; and changes due to the program.

1. Filling the health care gap

From the interviews, it became apparent that participants of the program had a wide range of views of the health care system, and many were often frustrated when discussing their experiences. The CHAP program for many offered an additional environment to

seek medical care that was in contrast with their experiences in the current health care system and often mitigated some of these frustrations.

It was evident that for many of the participants, their experiences with health care providers were impersonal and it was frequently expressed that their doctor or other health care provider often did not have time to address all of their concerns or questions. Participants often discussed times when they felt their health concerns were not taken seriously, unaddressed, misdiagnosed, or missed entirely. Participants also expressed that they had difficulty at times making an appointment or seeing their family doctor as often as they would like. Thus, participants felt they had to find other avenues to address their health care needs.

The feeling that the health care system was an impersonal experience was expressed by many. Participant number 107 and 101 stated:

P107: "I am looking for a new family doctor because my doctor retired and he chose this man to take over his practice and you know, I am sure he is a good doctor, but he doesn't have the people skills that I need. He was an emergency room doctor and I don't think he realizes he is actually going to see us again. We aren't one offs you know (laughter). So unless you are in crisis he isn't really aware of what is going on. He is blasé about it. The last three or four times I have gone in the diagnosis I have got is that I am "old". I don't process that as a diagnosis. So what do I do? I just use the other systems."

P101: "You see this is what I am missing here with the doctors. You come in and they sit on the computer, and, they don't even know it's you or somebody else. Could be my dog, something like that. I don't feel comfortable."

Further, some participants did not view themselves as high users of the health care system, or having qualities like other older adults who frequented the health care system.

They expressed frustration about not being appreciated or dismissed by the system as a patient because they were not high health care users:

P101: "I am not a complainer. I have never been really sick. I do my test every year and I stick to that and if I do have a problem, which hasn't been very often, then I know I have to go. But I don't want to be treated, sometimes they go oh what do you want here? If you are not complaining too much, don't they make enough money from you or don't you take enough pills, they don't want you. I am very sensitive there, in that regard. I know lots of people they go everyday. For me, when I broke my foot, but that's a different story. But in general I never."

For many of the participants, the CHAP program provided a way to mitigate their frustrations with the health care system. Participants often stated that during the CHAP program the paramedics took the time to address their concerns and they felt they could ask them for help about any problems they had. Participants stated that their interactions with the CHAP program were personal and they felt that they were being listened to. Further, due to the program operating on a weekly basis, they more frequently saw the paramedics than other health care providers. Participant 108 stated:

P108: "I usually ask him about how I am feeling, if something isn't right. He checked my legs and it was better to have somebody check it because you cant get in to see the doctor."

For building residents, the CHAP program offered an alternative to their interactions in other areas of the health care system that fulfilled their personal needs. For example, some wished their doctors would take their blood pressure or take more time to discuss with them their health. For others, they valued the ability to have all of their

questions and concerns discussed, and at a time that was convenient for them. As participant 101 stated:

P101: “You are more one-on-one discussion. It is not like the doctor where you have five minutes, boom, boom, boom, out you go and you don’t get to the point what you wanted to say. Before you say hello they are out of the door already.”

Further, participants expressed concerns on a broader level, expressing that their frustrations with the overall health care system often overshadowed even positive interactions with their family doctor. Participant 109 stated:

P109: “Well yeah, because you can come down and talk to them about stuff. I mean when you have your ten minutes doctors appointment you get one question and that’s it. I mean he is a great doctor. But I mean, they don’t have time. Unfortunately the system doesn’t have time.”

Overall, the CHAP program offered residents an opportunity to fulfill needs that were not being met in the current health care system. For many participants, this was a personable, caring interaction with their health care provider. The feeling of being listened to, as well as having control and autonomy when deciding to seek medical advice was of value. The CHAP program allowed residents to address and ask a variety of questions regarding their health without feeling rushed or constrained as was common with their interactions with their family doctor. These frustrations with the health care system is also related to why they continued to attend the CHAP program, which will be discussed next including concerns over health, an opportunity to discuss their health and an alternative health care option.

2. Motivators to attend

One of the main themes from the interviews was the reasons expressed by participants for their continued participation in the program. Although the reasons for attending differed between residents, it was clear, and expressed by many, that they enjoyed the program and looked forward to attending the sessions. Many reasons were expressed for attending which will be discussed below.

Concerns over health

One of the primary reasons for attending the program for participants was an interest or concern over their health. This was expressed by those with chronic health conditions, and those who claimed to be healthy and had only minor health problems, and attended the program preventatively. Many expressed that they were concerned over certain aspects of their health, such as their blood pressure or having a family history of certain diseases. Thus the CHAP program offered a reliable method to keep track of their health on a regular basis. Participant's 109 and 107 stated:

P109: "I am very careful with my diabetes. It doesn't run in my family it gallops. My grandfather died of complications, my uncle, my dad died of a heart attack. So I am really careful."

P107: "I have always been on top of my health, I have had to be. So other than you know, weekly monitoring, no. I would go to the drug store, and take it, not on a weekly basis. But this keeps me on track. And I make sure on Wednesday, wake up, go get your blood pressure."

P107: Just the idea that people have to be aware of their blood pressure, their sugar problems and it keeps them on a weekly basis about their problem so that they keep on top of it. Its easy to forget and just ignore it. I think you have to be on top of things. Even if its just not something you like to do. You have to be aware and catch it early. That's the biggest thing, catch it early, get on top of it."

There was also a sense from participants that monitoring their blood pressure and health was more important as they were “getting older”. Participants often discussed that they did not want to take their good health currently for granted, and thus having an opportunity to monitor their health was of value. Participant 101 and 105 stated:

P101: “It’s good to know what your blood pressure is doing, you know. You have to know. At our age, you shouldn’t take it for granted that every day is the same thing. And you should go and if there is something...like I had a small thing the other day. My blood pressure was too low. But you see, you don’t know, the blood pressure, you have to continue going, you can’t stop. You have to go to find out how is your system doing. You should. You don’t have to. But you should go.”

P105: “I am always interested in health and everything. Its... no. it feels good that someone is there to help you if you have any questions because you know, I am getting older. Who knows what types of questions I might have. Right? So that feels good.”

Others who attended the program stated that although they felt they were healthy now, they wanted the program to remain in the building in case they needed it at a later time. Many of the participants and frequent users of the program denied currently requiring other community support resources, such as CCAC. As participant 104 stated:

P104: “Because right now I might not need it for a lot of reasons, but there could be a time where there is an issue in my health and I will need it. And that could be tomorrow, you never know. So I love having it there.”

The CHAP program made participants feel “more at ease” about their blood pressure. It was often expressed that the program became part of their weekly routine and once their blood pressure was taken they could go on with their day. The CHAP program

was a reliable source for confirmation that they were taking care of their health. One participant stated:

P111: “You feel at ease knowing your blood pressure is being checked and you are okay. I can sleep through the night knowing that am not going to get sick.”

Thus the CHAP program was an opportunity for residents who were concerned about their current and future health to regularly and reliably monitor their health. Further, the program offered residents an avenue to openly discuss their health with the paramedics, which will be discussed next.

An opportunity to discuss their health

Another major motivator to attend was the ability for residents to discuss their health with the paramedics, and seek advice or clarification on a variety of health care issues. Many stated that they often attended the program to seek advice on a wide range of short and long term health issues, such as chronic health problems, medication changes, and new injuries (such as fractures). For some residents, when they were uncertain about their medical problems, they valued the advice the paramedics gave them regarding their issue. Participants 101 and 115 stated:

P101: “You know, but I always have the ability to go and ask them the next time they come, Wednesday. I have this and this, what could that be?”

P115: “I talk to them generally about everything. Basically I still deal with specialists because of my conditions every three months. But if anything happens to me in between then I go and talk to them and see what is going on. And they will let me know what I should do.”

Participants valued that the paramedics took the time to address their concerns and clarify their health issues with them. This was in contrast with their experiences with the health care system, in which they often felt rushed and constrained. Participant 103 stated:

P103: We are seniors and it is the biggest asset to the building. Because everyone is at different stages of health related issues and it's such a piece of mind for myself and everybody else that you can go in and discuss an issue and they are going to direct you and they might even step in... just having that assuredly of advice, and not feel like you are being turned away. I mean, I am part of the boomers, we don't get turned away. But most of the doctors out there do not treat the seniors really great. So that issue of them and myself and having somebody say hey, you know um, I got this little thing here, I know its not your department but what do you think? And they can advise you."

Participants valued the opportunity to seek advice from the paramedics, for some, this resulted in use of the program in order to avoid using other health care systems, which will be discussed next.

An alternative health care option

For some residents, they expressed that they used the program as a way to avoid seeking medical attention in other settings, such as the hospital or their family doctor. Participants stated that if they were not feeling well throughout the week they would wait until the next CHAP session to address the problem. Participant 101 and 104 stated:

P101: I think lots of people go here, and I am sure I have done the same thing, and they don't feel good and they don't want to go to the, and I am not the only one here, I'm sure there are others, they said oh no, lets wait until [the paramedic] comes on Wednesday and...I am sure there are lots of people like that."

P107: "Well I always felt it was a good idea because it brought people together jointly for their health. Because a lot of people don't wish to go to the doctor. And I thought well this is a good way for them to be monitored without actually having to go to their doctor."

In addition, it was common for many participants to attend the sessions multiple times throughout the day if they were feeling unwell. That is many would attend the sessions in the morning, and if they were not feeling well would attend the sessions later on in the day. If the problem was unresolved, they would then seek advice on if they should seek further medical care. Participant 102 stated:

P102: "If you are not feeling good, and not in the afternoon, you can go back and go what do I do about it? He can't perform miracles either, you know, he is only listening to what you have to say. And if he figures he can help, he will."

For many of the residents who were reluctant to go to the hospital for medical concerns, they trusted that the paramedics would advise them on the best course of action for their health, and thus it became common for these kind of situations to occur. For the residents, the CHAP-EMS program offered them with more flexibility and options when making decisions about their health, and offered a more convenient and pleasant alternative than seeking care from other health care systems.

Overall, for residents who attended the CHAP sessions, their motivators for going to the sessions were complex and influenced by many factors. All of the participants expressed that they enjoyed going to the program, and that it made them feel good to be taking care of their health. However, for many residents who stated they were healthy,

they used the program preventatively or to keep the program for other building residents. Although this was not the intended goal of the program, it further highlights the complexity of community health initiatives in this setting, and relates to the themes of the communication and relationships, and the social connectedness of the building, which will be discussed next.

3. “It’s the feeling they give you”: relationships between paramedics and participants

In contrast with the impersonal experiences they had with many health care providers, participants expressed that the paramedics at the program provided them with a welcoming and personal experience. This was mainly attributed to the personal characteristics of the paramedics, such as their welcoming, caring, and thoughtful attitude. Participants expressed that the paramedics were easy to understand and spoke in lay man terms when discussing their health. Participants had only positive comments to say about the paramedics running the program. Many stated that their interactions with the paramedics often helped them ask questions to their family doctor or inform them about their other problems. Participant 107 stated:

P107: “It has a lot to do with personality this thing. And how he interacts with people. Because he is open, is caring, is fun, he likes the people. He is concerned. All the things you want in a doctor or a health care professional. Because its not the pills they give you; it’s the feeling they give you.”

For some participants, their relationship with the paramedics allowed them to discuss problems, such as mental health issues, with them that they had not brought up to previous health care providers. Participant 112 explained:

P112: "I was ashamed to tell them. And I would not talk about it. Then [the paramedic] and I were talking and then it sort of came out. I feel comfortable knowing that someone knows what is happening. Because in case I don't come down then they will know what is happening."

It was very clear from the interviews that the participants in the program felt they had a close and personable relationship with the paramedics operating the CHAP-EMS sessions. This relationship was both from the medical advice discussed above, and their interactions with the paramedics unrelated to their health. Many participants stated that while attending the sessions they could socialize and have fun with the paramedics alongside discussing their medical concerns. One participant described:

Interviewer: "What do you like about the program? How is it different from going to your family doctor?"

P102: "It's completely different. You are talking personality. You can joke and the girls seem to know you."

P102: "I am still in it. Yeah. Because it gives us something to look forward to on a Wednesday eh? Crazy eh? We get along so good. Because [the paramedic], I am always pulling his leg and vice-versa and we call each other names and you know. It's surprising."

From the interviews it was clear that the participants felt they had close relationships with the paramedics, and many even described them as "feeling like family".

Participant's 101 and 106 stated:

P101: "There is nothing that I don't like about it. I am very open and I tell them what I feel they should know about me and vice versa, they tell me what they think and that's all. We have a good understanding here. You know how relaxed it is."

P101: "Like I said, they are very, very, nice, they are very open. You could ask them any questions and they are there for you. And no, I couldn't say anything bad even if I tried to."

P106: "I think everyone is doing an excellent job. That is what they are here for right. You know, and most of them are more than that. They are like a family right? And that's how they make everyone feel."

Further, the relationship between the paramedics and participants was also expressed as the residents stated they felt safer and more secure in the building knowing the paramedics were present.

"It's nice knowing someone is there"

In addition, when discussing their relationships with the paramedics, it became clear that the paramedics provided a sense of support and security for residents in the building. Many expressed that they felt a safety net was now in place in the building and that someone was taking care of them. This was a robust feeling expressed by many participants, both those who required more medical care and those who valued this for other residents in the building. Participants stated:

Interviewer: "Would you take [your blood pressure] at home?"

P102: "No. I wouldn't want to do it. Not everyday. Just in case its off, then I go, oh what am I going to do? Because there is nobody here to support me now. When you have these guys here, you feel different because anytime you have a problem you know those guys are just behind that door...for today. So if you have a problem during the week, let them know what happened. Dizziness, whatever. And they will try and help you out. And that's the advantage."

P109: “If you are not coming down then [the paramedics] will take it upon himself and come up and make sure everything is okay. Which is really good. So it’s a security knowing you have someone in the building looking after you.”

P-103: “I am glad they are here actually. It seems like people are at least looking after us. More then what the other people seem to want to do.”

P110: “Well I think its his personality too. And we all know that people that come down to see him know that he cares. And if he didn’t come down then I know that he would be up. And I think its just nice to have that extra support in the building that we didn’t have before.”

The program in the building not only enhanced feelings of security on an individual level, but participants also felt that the presence of the paramedics weekly in the building enhanced the wellbeing of the building as a whole.

P103: “I think once people become seniors, or even 60 for that matter, having a system like this in any seniors building, is more valuable then anything because of checking blood pressures, stuff like that, the continuation. It’s not your standard stuff that gets done every week. It’s the other things that are going to be the biggest things. And without that people are going to get worse, their conditions are going to get worse. But it really extends the well being of the seniors, in every way. Medically, emotionally, because there is an emotion thing to say someone is there and you can go talk to them.”

Observing personal relationships

It was clear from observing the CHAP sessions that the relationships between the paramedics and the participants were personal. The residents would frequently hug the paramedics and thank them for their time. The building residents were always happy to see the paramedics, and often referred to themselves as “good friends”, with many having inside jokes with the paramedics. Residents frequently brought down personal items, such as favorite books, photo albums of family members, or things they thought the

paramedics would enjoy to share with them. Another resident brought the paramedics coffee and treats every week.

The residents enjoyed interacting with the paramedics, and were disappointed when one of the regular paramedics was not at the sessions. For example, during one of the sessions, one of the “regular” paramedics who was normally there was unable to attend. From the moment the session began, all of the participants who attended that morning commented that he was missing, and most residents that normally stayed to socialize after their blood pressure was taken did not that day. Almost all of the participants (and paramedics) who attended the session that day commented on the absence of the missing paramedic.

Further, there were many incidences where it was clear the residents valued the program in the building. For example, when the blood pressure monitoring cards ran out one resident hand made the monitoring cards for the other participants of the program. There was also multiple efforts by many residents to clean and decorate the room where the program was being hosted.

Overall, attendants of the CHAP program expressed they had close and personal relationships with the paramedics. Communication was an important factor, as participants felt they were being listened to and trusted the paramedics for advice and to assist them with addressing problems in their lives. The paramedics gave participants a sense of security that someone was taking care of them in ways that they did not have before. In addition to these one-on-one relationships between residents and the paramedics, there were changes to the social dynamics between residents as well, which will be discussed next.

4. “We are all family now”: changes to social networking and connectedness

From the interviews it was evident that the CHAP-EMS program changed the social dynamics and relationships among building residents in a variety of ways. First, many residents expressed that the CHAP-EMS program was a social gathering for themselves and others in the building. Participants expressed that they enjoyed talking to other residents and the paramedics during the weekly CHAP sessions and often pointed out that many people stayed after their blood pressure was taken to socialize, sometimes multiple times throughout the day. Participants all commented that they enjoyed this aspect of the program, and looked forward to the weekly CHAP sessions. Participant 105 stated:

P105: “I find now, I am looking out for Wednesday’s. It’s good. It’s good to see people. Otherwise you don’t see no body sitting in here. I tell you... you see more people out, here now. Friday night I play cards, and that’s about it.”

P101:” We all go there and see each other and say how are you and so on, some people you know them better and so you stick around and you talk a little bit and its hard to say. Yes, we all like to go when the people are here, we all go down. And some people you see in the afternoons, we go down and chat a little bit and have a good time, half an hour or what, and it gives us a break during the day.”

Many admitted to enjoying the social aspects of the program, and that for some, it was their primary reason for attending.

P 106: “And you know what. It’s not even just when I need to go, because I take it at home. This is like a social gathering for me right. I come down here, I sit and talk with people and this and that. So remember when I said it meshes, that social thing, it does it for me too. Yeah. Sometimes when I don’t feel like coming I don’t come.”

It was evident from the interviews that participants felt the program brought together the building residents in ways that had not existed in the building prior.

Participant 106 and 109 explained:

P106: "It has done a lot for people here, in more than one way. I think what it has also done is outside the health program is that it has brought people a little together. When I say together I mean in communication. Social... you know. It has added a bit of the social... integration of people in the building. I know there are a lot of people here who don't come out and very seldom come out. And they come here and for some reason they meet and they get talking and things like that. So it has done that. It has brought social awareness... maybe social awareness is not the best word. Social integration. It has brought that."

P109: "It's become a social gathering. People are talking. We are such a... we are united nations in this building. But getting people out that don't really have a good knowledge of English or used to old customs, but now you see every week more and more of those people getting checked. I think that's really important."

For some participants, their views of the other building residents changed as well.

Many mentioned that the program was an opportunity to meet new people and form new casual relationships. Participant 105 stated:

P105: "People are a little bit more talkative with each other, and a little bit more forgiving. you know how old people get."

P114: "We don't have a very good social thing in this building. Once you get a certain age you don't have the same value in socializing I don't think. You lose that. I don't know if that is good or bad."

I- "what do you think the program has done for social relationships in the building?"

P- "the social part... its probably improved it. Because we all meet in the same place, in the same day, and talk to the same people more or less. Not every week. But it's improved a lot of things. It must have. It's a great thing. I like it."

These new relationships were not described as close or trusting, as when participants were discussing their relationships with the paramedics, but casual encounters. Participants did not feel the obligation to attend the sessions if they did not want to and could attend the sessions and socialize with other residents on their own terms.

“It’s better for others than for me”

Participants also expressed that they felt the social dynamics of the CHAP program in the building was especially useful for other residents, and often perceived others as “needing it” more than themselves. Participants often described their fellow building residents as socially isolated, and that the program was an opportunity for social engagement amongst their peers:

P102: “They look forward to a Wednesday, because now they can go and talk to somebody. That’s how bad it is here. They are lonely. But I am the opposite. I have a wife and all my grandkids and you know, I have all I need. But its still, I like to talk to [the paramedics]. They make themselves known.”

P 101: “I mean I am talking about our situations here. We are all on our own, we are all singles. Those people don’t get out that much or what they do, they go to the doctor, they go to shopping and that’s that. When they could go out to things like that, they don’t have to get dressed up, they don’t have to go downstairs and meet some people. Its very soothing. To go down and talk to people. And I think that this should be more, more places like that.”

It was often stated that they felt the program was needed for other residents in the building, and they attended to keep it in the building for other residents, both those attending and those who they hoped would go in the future. Participant 107 stated:

P107: "And I think that's integral for people in this building. I wish that more would come out. I wish we had a method where we could get to the people and have them come out more. Because they feel as though they are taking care of themselves and really they should be monitored. Even when you are on meds. You know...so, I would like to see more people come. I don't know how they would get more people to come. I mean we talk to the people that come, we say you should come, there are all new things they can tell you and its educational. Like... but they are all I'm okay."

Observing social interactions between residents

Every morning when the sessions began at 9am there was a similar group of residents waiting for the blood pressure clinic to start. Many of the residents would stay and socialize before or after, or during, their blood pressure monitoring. Many would go outside and socialized on the patio while they had a cigarette. A substantial proportion of the regular residents who attended the sessions came down to the common room multiple times throughout the day. These multiple visits appeared to be primarily to socialize, and for the residents involved in the building association, a place to organize and promote building events.

The CHAP sessions were often a place for building gossip. Residents would frequently comment on people they hadn't seen attend the program in a while, and occasionally would ask the paramedics to go and check on these residents. Residents would also bring their family members, such as their children or grandchildren to the sessions, and the small children would often play with the paramedics.

The paramedics also initiated opportunities for social events for residents. For example, during one session, one paramedic who had previously operated the program (however no longer did) attended a session to visit the residents. The visit was a big event

for resident, who were excited to hear about her volunteering experiences in which they had donated to. The residents set up a food table for her visit, and residents who were not frequent attendees of the normal CHAP sessions attended in order to see her. It was of interest to note that only women stayed to see the entire presentation.

The environment of the program was very relaxed. Residents came and went freely and very few times was a resident in a rush to get their blood pressure taken. The “lineup” for having their blood pressure checked consisted of the residents waiting on the couches or chairs, often chatting with the other paramedics or residents. Privacy was rarely an issue during the CHAP sessions. Residents at times openly discussed their own health or personal problems, and often discussed these in the common area, rather than a one-on-one discussion with the paramedics.

Although the CHAP sessions were clearly a social event for many residents, there remained some tension amongst building residents, and barriers to the programs function. There were incidents of theft in the building (in once instance someone stole artwork from the common area) and problems from the prior building association that often played out during CHAP EMS sessions. This was more openly discussed in the interviews, which will be described next.

Barriers to social connectedness

Although it was evident that the CHAP program enhanced feelings of community and offered an opportunity for building residents to connect with one another, there remained issues that created challenges for some residents to participate in the building’s social events.

The CHAP program provided a vehicle for residents to discuss many of the issues that were affecting the social life of their building. The buildings senior association, who was responsible for organizing social events in the building, prior to the CHAP program being implemented caused turmoil between building residents. Participants stated that although things had improved since the implementation of the CHAP program and the involvement of the paramedics assisting with the building organization, there remained some personal problems between residents. These problems often surfaced at the CHAP sessions and in the individual interviews. For example, one resident expressed frustration about other residents taking the program for granted, or wanting the program to be more private:

P101: "And, that open business there, with the divider there, that is plenty. I mean you are not taking someone underdressed or anything, you are taking a blood pressure. I know some people have complained that they should be private...see this is what I don't understand about some people. This is why I say some people I like, some people I don't like. Don't make such stupid remarks. Who do they think they are? They should be happy that we have it here."

Although attending the program for many was a positive social experience, and for many connected them to other events occurring in the building, negative past experiences made it difficult for some residents to participate in other events in the building besides the CHAP program. For some, this prevented them from participating in future events, even after acknowledging that many improvements to the building had been made since the CHAP program was implemented. For these participants, the CHAP program was an opportunity to be involved socially in the building without having to commit to a larger

organized event, some of which were sources of negative feelings or stressful. One participant described:

P109: “We play bingo every now and then. Before [another building resident] and them took it over it was just too much in-fighting. It was just terrible. They were all sniping at each other. Since they have done it, they did it right, no arguments, here is how it is, if you don’t like it tough. So things are a lot better now. The hierarchy of the association is all changed, which was very important. Because they used to think they owned the building. It caused a lot of problems. It was a dictatorship, you couldn’t do anything.”

Language barriers

There was also evidence from both the participant interviews and the observational periods that there were language barriers for some residents that may impact their involvement in the program. This was evident in a variety of ways. For the participants who were actively engaged in the buildings social activities, they expressed difficulty increasing the attendance at their events due to other reasons, such as language barriers with some building residents. One participant explained:

P107: “It’s the people that always come down. We keep trying to encourage more people, but its basically has stayed the same people. You know. It has to be...we have to check and see if there is any other way to keep people to come out. We are dealing with a language issue...immigrants. So it would be nice with all these things they have on Google and stuff now we couldn’t have some things written in German or Russian or Chinese, to cover everybody. Why should we leave them out? They have health problems. Look around? Do you hear any accents out there. Not many.”

In addition, only a small number of non-English speaking residents attended the program regularly. While these residents appeared to utilize the program and it was observed that they regularly attend the sessions, but the often thanked the paramedics as

well. However, beyond this, they had limited interaction with other residents other than a simple greeting. However, it was observed during one weekly session a family member who enrolled her elderly mother who did not speak English into the program. Thus, English speaking family members or friends may be important for individuals living in the building when enrolling in the program.

Overall, the CHAP program enhanced the social connectedness of the building by allowing residents to have an opportunity to socialize and meet other building residents. However, there were barriers to social connectedness that resulted in the relationships between residents being casual and not close, personal relationships. However, the program allowed residents who did not want to commit to a larger social involvement in the building to control their own social interactions between building residents.

5. “They have saved people”: the added value of EMS skills

A salient theme from the interviews was that residents valued paramedic skills that were not necessarily the focus of the CHAP program. Although the paramedics were situated in a community health role, and separated from other things associated with an emergency response (such as an ambulance and most of their standard equipment), elements of their “emergency” role remained important and valuable to residents. That is to say that while the CHAP program and the fact that the paramedics are modified and thus cannot carry out their normal “emergency” procedures, their ability to identify and act on residents who were experiencing an acute medical event was a highly valued skill

to the residents. Many participants often spoke of the paramedics saving themselves or other residents in an acute medical situation:

P103: "I guess the biggest, biggest thing that I have heard time and time again that they have stepped in and directly or indirectly saved people. They have helped a lot of people, more than one, where it was life or death. Who knows where they would be now. Forgive me, mine was just a choking. Theirs was major surgery. Who knows where they would be?"

P104: "Well they helped some people who had to go to the hospital right away. And it feels really good because I might need it one. So they have saved some lives in here. And that is worth anything. That is worth millions of dollars. So that is what I find really good."

In addition, residents valued and respected that the paramedics would at times push them to seek medical attention, even when they were reluctant to. Participants spoke of paramedics pushing them to be more proactive about their health, and in some cases this led to life-saving procedures being carried out. Residents took comfort in knowing that the paramedics would step in in the case of an emergency. Participant 101 explained:

P101: "They saved my life really. About end of August, all of the sudden I couldn't walk. And the paramedic said, come on, lets go, I have to drive you to the hospital. And they drove me to the hospital and I tell you I was thankful for that. They pushed me to go. They pushed me. And then I had two stents put in. They saved my life."

Participants also expressed that they valued the knowledge and experience the paramedics had. As participant 103 and 109 stated:

P103: "So, they in some cases, because of hands on experience, on certain issues they may even know more than doctors do. Right then and there, doctor doesn't see them, they see them when they are surviving, we'll go give them an operation or something. These guys see a lot."

P109: “And they can pick up really quickly. They have done it a few times when something has been wrong. And that’s invaluable. I think that’s three or four people they have taken out on ambulance on their recommendations.”

Further, for one resident, attending the sessions and knowing the paramedics in the building was useful for her interaction with paramedics outside of the building. For one resident who fell and injured her hip and required EMS, she expressed that she felt she received a higher level of care because the paramedics treating her new the paramedics running the CHAP program. Participant 107 stated:

P107: “So I had an in. And you do get better care when you know somebody. That’s the way it works.”

Observing the “extra”

The paramedics frequently performed actions that went beyond the programs intentions. As the program had been running for two years, there was an established routine that the paramedics had. When it was quieter in the afternoons, the paramedics would split up and one would make “house calls” to residents who were unable to attend the CHAP sessions due to their health, or chose not to but would allow the paramedics to check in on them.

Further, for residents that had complex medical histories or complex social problems, the paramedics often took a significant amount of time to collaborate with other health care providers, both within the building (such as the diabetic clinic) and in the community, such as calling CCAC case managers and other social services. This could in some instances be a timely process and span over weeks before the issue was

resolved. The paramedics would often “report” these updates to the other paramedics operating the program in order for the issue to continue being addressed in subsequent CHAP sessions. The paramedics also took it upon themselves to create other additions to the program, such as a creating a binder of all community support services in Hamilton. In addition the paramedics kept a collection of walkers and canes that participants brought them if they no longer required them for other residents who may need them in the future.

However, it is important to note that some consistency barriers were observed. For example, for most weeks of the observational period, the same paramedic attended every session and thus often was informed about the “regular” patients health care issues on a weekly basis. The other assisting paramedics varied on a weekly basis. It was often noted that this allowed for patients who may have been referred to additional community support services to be followed up with weekly. During the week that this paramedic was unable to attend, it was observed that the attending paramedics were not aware of some participants problems that were being addressed the week before. This was became apparent when a patient who had a complex mental health history and required CCAC services went to a CHAP session to follow up with his concerns and the paramedics who had never attended the sessions before were unaware of the complexity of these concerns and what had occurred the week prior.

Although paramedics were not in their traditional role operating the CHAP program, they retained the many features traditional to EMS, such as the ability to “save lives” and act on acute medical situations. This was highly valued by residents, who openly discussed their own experiences or of others in the building who required

immediate intervention on behalf of the paramedics. Thus a large proportion of the paramedics skill set, that although were not the focus of the program, had immense value to the building residents.

However, the “soft skills” of the paramedics, such as taking the time to connect with other health care providers, were not discussed as valuable by residents who did not require these services. For example, many participants did not require CCAC or other social services, and did not discuss that they valued that the paramedics had assisted other residents with these problems. However, the majority of participants did discuss the value of paramedics “saving people”, even if the experience had not happened to them. Thus, while many aspects of the paramedics skill set was of value, only the “emergency” role was of synonymous importance amongst all participants.

6. Changes due to the program

The CHAP program effected residents and life in the building in a multitude of ways, both intended and unintended. Participants expressed that the program was working, both on an individual level, and for the building as a whole, as demonstrated through a reduction in EMS calls to the building.

For some, the program resulted in lifestyle changes, such as a healthier diet, medication changes or changes to their daily routine. For example, following the advice of the paramedics to be more conscientious following her heart operation, one resident stated she now took the elevator during non-peak hours instead of the stairs in case a medical event occurred while walking. Others received advice about their diet or exercise

regiment, and although some stated that they followed up with this advice and began a healthier lifestyle, it is unknown if all made actual changes to their regimen.

Some residents expressed that although they valued and frequently asked the paramedics for advice, they were reluctant to make any changes to their lifestyle. For example, participant 102 stated:

P102: “No I am very stubborn, I am. It’s our own way. I do it without changing anything. Even if you told me, you still don’t do it, you do it the old way. I quit smoking two years ago now. I feel good about it but I still want that cigarette”

P101: “He didn’t want to say no don’t go, because he knows I have never listened to anything like that in my life, so I think he knows me very well. Certain things I will do, you know. But I have to see it from their point as well.”

For many participants, the advice the paramedics gave them, such as to ask their doctor about certain diseases or concerns, made the most impact. For example, for many residents from the program medication changes were made, new diseases or medical problems were diagnosed, and clarifications about their health were made. For example, participant 110 stated:

P110: “And they gave me some information when I had this lump on my leg. I thought it was just “part of the process”. But he[the paramedics] wanted me to go to get it checked. So I did. But I wouldn’t have gone if he didn’t tell me to do it.”

For one participant, the program also addressed personal issues that equally impacted their life:

P111: "I was having problems with my apartment, and I was talking to him about it and with that they were able to transfer me to another building. So yes, he helps us outside of medical reasons."

Further, the CHAP program resulted in a cohesive health care experience for residents. Participants valued that their information was passed on to their family doctor and that the program allowed them to connect with their family doctor in a more convenient way:

P102: "When it comes to your prescriptions they check you and make sure you are taking the right prescriptions, and if your not, your doctor is notified right away which I like. I think that's a good idea."

Residents also expressed that the program made them more aware of their health. This was a combination of both knowledge gained from the paramedics at the program, and being given direction or advice from the paramedics on who to seek to gather more information, such as a specialist. Participants stated:

P106: "It keeps you involved in your own health management also right. It brings awareness of health issues. I know I have gone through it already where I came down here and my pressure had dropped really low and right away the paramedic made an appointment for me. He called the doctor and made an immediate appointment for me. You know? So its things like that that you become aware of. That helps a lot of people in that way."

P109: "It made me more aware of my blood pressure. We went out a bought a good blood pressure monitor so we can check. So in that sense yes, it has helped. And once again, I am curious. I want an understanding of why it goes up and down."

Residents did not explicitly express in the interviews that they felt healthier since enrolling in the program, but rather they were more informed and aware of their own

health problems. The changes residents experienced from the program were not commonly lifestyle changes (such as diet or exercise) but personal ones, such as feeling more in control of their health, being more aware of their health problems and feeling more cautious about their health.

Non-participants Survey Data

Determining why residents in the building did not participate in the program proved to be very challenging. From the 192 focus group invitations, only two respondents responded, including one who had no intention of partaking in an interview. Following this lack of response it was determined that brief interviews conducted in the front lobby of the building with non-participants of the program would be the only feasible alternative to gather information about this group. The goal of the short interviews was to gather an understanding of non-participants knowledge of the program, why they did not attend, and if they would do so in the future. While it was aimed to gather as much information as possible from the interviewees, many were not willing to spend more than five minutes discussing the program. In total, twenty non-participants were surveyed. From the data collected, three clear themes emerged regarding why these residents did not participate in the program and their perceptions regarding it.

Other health care options

Many residents that did not participate had other options to take their blood pressure. These non-participants stated they had a convenient, regular health care option,

and faith in their own regular care. This included a home monitoring system (either theirs or a neighbors), a clinic nearby, a pharmacy, or their family doctor.

Personal health perceptions

Secondly, most felt that they did not require weekly blood pressure monitoring. Many reasons were reported for not requiring weekly blood pressure monitoring, such as exercising, or simply “being healthy”. One participant believed that they did not require it as they were recently taken off medications, and therefore believed they were no longer unhealthy.

A third of the non-participants stated they would enroll in the program in the future if they felt they needed to (i.e. health worsened), however felt that they currently did not, and the majority of these residents were not interested in learning more about the program when offered.

Barriers to participation

A main reason residents stated they did not attend the CHAP-EMS program was due to incorrect beliefs about the program. Residents had varying beliefs on the details of the CHAP-EMS program such as its purpose and how it operates. For the majority of the non-attending residents, the purpose of the program was unclear. For example, one resident believed that the program cost money and that is why he did not attend. Another resident believed it was solely for diabetes monitoring.

Most residents had a vague knowledge of the program, or at minimum, knew it was present in the building. Some non-participants reporting seeing the fliers and posters

promoting the program. Four surveyed residents reported that they knew nothing about the program. In addition, one resident also stated she never knew the program was in the building as she lived at the end of her hallway and rarely left her apartment to see or attend information sessions about the program.

Two of the surveyed residents felt strongly that the program was an inefficient use of resources and would not go to the program, even in the future. These two residents expressed anger that the program was in the building. An example of this was when one surveyed individual stated that he believed the “injured” paramedics should have their employment terminated instead of operating the CHAP-EMS program as it was an inefficient use of resources.

However, some residents who sought clarification on the program expressed positive feelings towards the program. One resident enrolled after learning more information and two said they were likely to enroll once clarifications were made at the end of the survey on the details and purpose of the program. Conversely, many did not seem interested in the program, and most did not care to learn more about the program at the end of the interview.

DISCUSSION

This case study goal was to explore residents’ experiences and perceptions of interacting with a community paramedicine program. Based on the results from the semi-structured interviews, participant observation and non-participant interview data, it is evident that the CHAP-EMS program has been experienced by residents in the building

in a variety of ways and the analysis of the results raises a number of important implications.

The downstream effects of Canadian health care and social policies

The first implication of the CHAP-EMS program was that for participating older adults the program offered them an avenue to mitigate some of their health care and social concerns in an otherwise constrained healthcare and social system. While health care was once thought to be under government control, there has been many recent changes to Canada's welfare state, with an increase in neoliberal ideologies and an increased prevalence of the private market (Baranek *et al*, 1999; Raphael & Bryant, 2004). Canada's strong social safety developed post World War II has experienced many changes as the globalization of markets, the country's increasing debt, and economic uncertainty have resulted solutions that promote private market systems and the retrenchment of government provided services (Baranek *et al*, 1999; Raphael & Bryant, 2004).

This has occurred throughout the health care system as shifts in financial resource allocation from institutions to the community has led to a decrease in the amount of Long Term Care (LTC) beds, shorter hospitalizations, and an increase in the amount of money spent on community home care resources (Baranek *et al*, 1999). Home care, originally designed for aging adults or people with disabilities to provide assistance to remain at home, is now for patients who would have previously received acute care services in the hospital. These policy changes have affected the environment in which older adults age,

on one hand increased individual autonomy and choice, while on the other downloading former state responsibilities onto the individual in order to curb medical costs.

Neoliberalism policies and the lack of strategies to address broad social determinants of health in Canada may be more exacerbated for older adults with low incomes (NACA, 2005) as such the case with the subsidized seniors building examined here. Older females may be particularly effected by the a retrenchment of welfare state policies due to their work histories, and may be more likely to require some form of state support in later life (Raphael & Bryant, 2004). Recent research has highlighted that although in Canada the rate of older adults living in poverty is relatively low (5.2%), upwards of 70% of seniors living below the Low Income Cut Off (LICO) measure are single females (Bazel & Mintz, 2014).

These changes to social and health care policy both federally and provincially result in certain older adults, and in particular single females, being particularly disadvantaged. For lower income older adults, while they may receive government support from as tax credits for medications and income support from Guaranteed Income Support (GIS), these forms of support are often insufficient for older adults, particularly single women or those living just above the LICO (NACA, 2005; Bazel & Mintz, 2014). The amount of money provided by the GIS has been found to be insufficient to meet living requirements (for those who resided in metropolitan areas where cost of living is higher) with not enough money for food remaining once housing and other expenses were paid (NACA, 2005).

In addition, it has been projected that 19% of older adults live just above the LICO and thus do not receive income tested benefits (NACA, 2005). For older adults who

choose to work, for every dollar of income earned, GIS is reduced, taxes increase and GST credit goes down. In addition, the cost of home care and meals on wheels increases and the amount of social housing subsidy decreases. For older adults who have no retirement savings, they will receive maximum support from the government, however for older adults who have a small amount of retirement savings they will have portion of assets “confiscated”.

The CHAP-EMS program as a source of social capital and support

As health and social resources become more limiting and social service resources become more confusing with the intermingling of the private and public market, it becomes more difficult for older adults to determine what they need and how to get it (Aronson & Sinding, 2000). As discussed earlier, it is now acknowledged that the social resources, such as social capital, support and connectedness have implications for older adults health and wellbeing as they age. However, it has been argued that in Canada, there are few health promotion initiatives addressing social resources (Raphael, 2014). Raphael argues that while Canada is an international leader in health promotion, recent policy changes have resulted in a downstream, biomedical approach to address health care issues that primarily focus on behavioral risk factors rather than the conditions in which people live and work. The focus on downstream approaches is also in part reflective of neoliberal shift in health care policy, in which societal issues are displaced onto individuals rather than addressing them at a government level (Raphael, 2014; Raphael, 2008; Lazar, 2011).

This case study of a health promotion program in a subsidized seniors housing building echoes the themes discussed above. First, this subgroup of the population may be particularly at higher risk of requiring some form of state support, given both their financial situation and other challenges associated with aging, such as ailing health and a loss of social networks. Given current trends displacing government responsibility onto the individual, for older adults who are a higher risk group, health promotion programs may be of particular benefit. From this case study of participants of the CHAP program, it was evident that older adults utilized the CHAP-EMS program as a unique coping strategy to mitigate their concerns and frustrations with both the health care system and their social networks.

On an individual level, at the CHAP program residents were able to receive health care that was in contrast with their other health care experiences including a comfortable, relaxed, and caring environment in which to openly discuss their health. Although not all participants expressed that the program changed their lifestyles, it was clear that the program provided them more options and education regarding their health, access to reliable resources, and security in knowing someone was concerned for their wellbeing.

In addition, the program operated consistently on a weekly basis, offering a simple and convenient solution to have their health monitored weekly and an avenue to routinely discuss their health. This finding is important as social capital and access to support is both contingent on the quality and quantity of available social networks, as demonstrated here (Gray, 2009). This may be of particular importance to lower income or disadvantaged groups who may not have access to reliable transportation or cannot afford other means, such as public transit, to regularly seek health monitoring. This would also

apply to individuals in poor health who have physical impairments impeding their access to health care.

The flexibility of the CHAP-EMS program allowed for paramedics to provide multiple sources of support for participating older adults. For example, participants that were recovering from acute medical events or had complex social or mental health problems had access to weekly monitoring and assistance from the paramedics. Participants often expressed that they sought advice and clarification from the paramedics, and that they were a reliable and trustworthy source for support. In addition, participants valued that if they were unable to attend the sessions in the common room which was the case for some residents in poor or worsening health, the paramedics would often make house calls to these residents. Thus support from the paramedics transcended residents ability to physically attend the program and provided residents with more resources during these acutely stressful events, which has found to be a beneficial form of social support (Blozik et al., 2008).

Participants over time were able to develop close and trusting relationships with the paramedics, which for some, resulted in social, medical or mental health problems that were previously undiagnosed to be resolved. For example, for one female participant who had faced stigma discussing her mental health issues in the past with other health care providers was able to openly discuss these concerns with one of the paramedics. The one-on-one relationships between the residents and paramedics were described as close, and trusting, and residents felt they were “being taken care of”.

In addition, 68% of participants in the CHAP-EMS program were elderly women, and from this study, of the nine women interview only one lived with a spouse. From the

interviews it was clear that the program provided these women with emotional and social support, and access to resources. In addition, for many of these women that were healthy and living independently, the programs presence in the building provided a sense of security in case they should need support in the future. The literature discussed above highlights single women are more at risk and may require more support in later life. Thus, this program successfully appealed to this subgroup of the population who may be particularly at risk in later life of a wide range of social and medical concerns.

However it was not clear from this study whether the program facilitated social support between building residents, which has also been noted in the literature as important in improving neighborhood capital and cohesion (Gray, 2008). There was evidence that residents invited their family members or friends to also attend the CHAP-EMS program, however beyond these experiences it is unknown if the program facilitated interactions between residents or neighbors outside of the CHAP-EMS sessions. Giving and receiving support between residents was complex and infrequently observed. Several residents discussed times where they had negative experiences assisting another building resident, such as being accused of theft. However, residents would occasionally ask the paramedics to “check in” on a neighbor or resident they were concerned about, suggesting that residents were able to support each other indirectly by using the paramedics. Thus, even though the increased interactions between residents socially may not have improved their relationships to the extent they provided one another with support, the paramedics presence in the building still provided an opportunity for them to assist their neighbors.

It is important to clarify that although the CHAP program was able to provide older adults with a wide range of medical, emotional and social resources and support, for the majority of residents it was not a replacement for other usage of the health care system, such as doctor's visits, and nor was that the intended goal. However, in some cases, residents expressed instances where they would delay seeking medical attention and wait until the next CHAP session to discuss their medical problems. This was because the residents trusted and had an ongoing patient relationship with the paramedics. One way to address this issue could be for these participants to have contact information of a paramedic who would have access to their medical history from the CHAP sessions who then would be able to advise them on whether to seek medical attention. Further, during the CHAP sessions, the paramedics could host educational sessions providing information on acute medical events where they should seek immediate medical attention, such as strokes, cardiac events, blood pressure or respiratory problems. The focus of these sessions would be to outline common symptoms of these life threatening medical problems, and steps to take to seek medical attention, including what level (i.e. 911, ER, urgent care or family doctor). This issues also speak to the "safety" of community paramedicine programs as identified by Bigham et al (2013).

Facilitating Social Connectedness

The CHAP-EMS program made an impact on the social connectedness of the building for participating residents. It was clear from the interviews the participants enjoyed interacting and socializing with other building residents while attending the

CHAP-EMS sessions. The participants all expressed that they enjoyed the “social time” at the sessions and for some, this was their primary motivator for attending. For residents, Wednesdays became an important social event, in which different groups within the building met to discuss and plan events, and conflicts within the building were discussed. Paramedics at times were involved extensively in these discussions, and assisted with the organization of building events.

There evidence that the paramedics were important facilitators of the increase interactions between residents. The paramedics who attending the sessions on a weekly basis had many interactions with the residents, and were very open and friendly, speaking to all of the residents that attended the sessions. This often led to other residents interacting with one another. In addition, events such as the paramedic who returned to visit the residents in which many residents came down to visit with her, also provided opportunities for residents to have social interactions with one another.

While it was not the intention of the CHAP-EMS program to improve residents social connectedness, consistent evidence from the interviews highlighted the benefits of these interactions to residents. Many stated that it was “soothing” to talk to other people, and outside of the CHAP sessions there was little interactions between residents and the majority of building residents did not attend other opportunities to socialize with others in the building such as during coffee hour or games night.

These results are speak to similar themes found in the literature, such as discussed prior, by Dupuis-Blanchard, Neufeld & Strang (2009) who found that daily social encounters were important for older adults relocated to a seniors building. Thus, providing opportunities for social encounters, such as the CHAP-EMS program, speak to

these benefits. In addition Depuis-Blanchard, Neufeld & Strang (2009) results that older adults were not concerned with having close relationships were their neighbors, and these complicated relationships were often easily terminated if the relationship is not reciprocated, addresses some of the barriers and relationships between residents in this study. Participants who had complicated relationships in the past, or had assisted another residents only to have a negative experience, expressed that they no longer developed these relationships with other residents.

This, however, raises the issue that there was both limits to improving the social connectedness of the building and barriers as well. Between some residents, there were complex histories that were often a source of “drama” and stress for residents. This prevented some residents from being more involved in building events. It was clear that ‘cliques’ existed amongst building residents and a similar group of residents attended the majority of events within the building.

There was extensive conflict amongst those involved in the organizing and planning of building events. Due to the complex social history between many building residents, some avoided becoming too involved in the social relations between residents in the building or committed in the buildings events. The CHAP program was an appealing social interaction as it offered an opportunity to socialize with other residents without becoming overcommitted or involved with other residents. For some residents, although they enjoyed socializing at the CHAP sessions, these positive experiences were not enough for them to be more involved in the building. Similar themes were found in a study by Buijs et al (2003), who’s qualitative study of a health promotion program targeting the general of lower income older adults found that conflict between building

residents decreased participation and prevented some residents from attending the program.

In addition, although there was evidence to support an improvement in the relationships between residents, both observed and reinforced through the interviews with participants, these relationships may be unintentionally exclusive. That is, the majority of the highly involved participants were healthy, and thus, their health did not prohibit them from being involved in the buildings activities. They also were primarily female and spoke English fluently. This is not to say that this group were the only ones who benefitted from the social aspects of the program. However, for this group that already was highly involved prior to the CHAP program, they were able to use the program in ways other residents did not, such as those who had negative social experiences, were unable to communicate in English or had poor health. This also raises the question brought forth by other research (Gilmour, 2012) of whether older adults are in good health because they have more social contacts, or their good health allows them to engage with their social contacts more than those in poor health.

In addition, the language barrier problems in the building were not overcome in the CHAP program. Non-English speaking residents were not observed as being involved socially while at the CHAP sessions and those that did attend the program would only stay to get their blood pressure taken. This barrier raises the question of whether it should be the intention of the CHAP-EMS program to facilitate social connectedness among building residents, and it should be clarified that this was not the original intention of the program. However, given the importance of this aspect of the program to many participants, and the benefits from being socially connected, such as having a larger

social network in which to obtain support (Cornwell & Waite, 2009; Nicholas et al, 2014), highlights that this could be an important and unique feature of this program. Thus, strategies to overcome these barriers should be considered, which will be discussed next.

Enhancing participation in the CHAP-EMS program

While the CHAP-EMS program appeared to be well received by participating older adults, results from the non-participant interviews and observational data highlighted barriers for participating in the program. As discussed prior, a large barrier to participation in the CHAP-EMS program was language. There were few non-English speaking residents who attended the program and when they did, their interactions with both the paramedics and other residents were brief. In addition, it was difficult to gather data from this group without a translator and many non-English speaking residents did not want to be part of the study when asked.

However, during one weekly session a non-English speaking resident joined the program with the assistance of her English speaking daughter who went with her and was able to assist the paramedics with enrolling the patient. Thus, advertising the program to English speaking family member may increase enrollment for this group and mitigate concerns due to language barriers. While gaining access to these family members may prove to be difficult, currently during the weekly sessions there is only a small sign stating the paramedics are in the building. Thus, having more information on the sign or brochures targeting family members could be one option. In addition, investing in a

translator or having a partnership with a South Asian medical clinic or practice may be of interest. It is also of importance to note that while language barriers did appear to be problematic when attempting to reach this group, other barriers such as culture or health belief may also be effecting the choice to participate in the program. Thus, when considering changes to the program, it is important to recognize that there are hard to access populations of older adults who may need more time invested in them to understand and increase their participation.

“It’s better for others than for me”

Another barrier for participation in this study was the assumption by both participants and non-participants that the CHAP program was “better for others” than themselves. This is a phenomenon that has long been explored (Weinstein, 1987; McKenna, 1993) and has been used to understand low participation in health promotion programs such as fall risk and cardiovascular health programs (Haines et al, 20140; Martin et al, 2013; Robb et al, 2004.). This phenomenon is frequently referred to as “unrealistic optimism” and is present across age groups and to a wide range of activities, including health related behaviors and lifestyle choices (Weinstein, 1987; McKenna, 1993). Mechanisms explaining the phenomenon have ranged from peer pressure or embarrassment, egocentric personalities, and cognitive errors (such as a lack of education, experience or stereotypes). In regards to health related behaviors, the concept of unrealistic optimism and perceived risk has been used to understand how to improve cancer screening amongst adults (Robb et al, 2004).

With regards to older adults, in a recent study Haines et al (2014) examined the low participation rates of older adults in fall prevention strategies and found that older adults often claimed it was “better for others” than themselves. The authors found that older adults perceived themselves as having a low risk of falling, regardless of other factors, due to having beliefs such as “it won’t happen to me”. This effect has also been documented amongst older adults participating in cardiovascular trials (Martin et al, 2013).

This study found similar results to these and highlights that there is a need to reconsider how the program is being portrayed to older adults. As well, it stresses the importance of understanding how older adults deem they are at risk of health problems. All of the participants interviewed in this study had some medical problems, however not all of the participants felt they needed weekly blood pressure monitoring, and some interviewed participants did not attend the sessions weekly. In addition, the majority of non-participants felt they did not require weekly blood pressure monitoring although they reported having blood pressure or cardiac histories.

Several of the above studies highlighted the importance of education and the tailoring of strategies to address the population being targeted by the program. Based on the non-participant surveys, the goal and value of the program has not clearly been articulated to all building residents. Given that many residents did not wish to be surveyed, and only two responded to the focus group interview letter, it is clear that there are both difficulties communicating with all building residents and clearly articulating the goal of the CHAP-EMS program.

First, as suggested above, having a paramedic occasionally be available to explain the program to building residents in the front lobby may be of interest. Currently there is only a sign in the front lobby of the building saying that paramedics are present in the building for the program. This may be a beneficial strategy as during the non-participant interviews, there were times when residents, after learning about the program considering joining and in two cases, enrolled. While this was not the goal of the non-participant interviews, having a paramedic promote the program when the sessions are occurring may increase participation to the program or provide residents with information should they need it at a later time.

Secondly, given that non-participants felt they were healthy despite having cardiac or blood pressure problems, suggests the need for more education regarding these medical problems, such as having a blood pressure or “heart health” information sessions in the building. In addition, it should be clarified for building residents that the program is free, they are not required to attend every week, and that the paramedics are well situated to address a wide range of concerns. Having personal accounts of residents who benefitted from the program and who are attending for a wide variety of reasons (preventatively or have complex medical history) may also be a strategy to promote the program and its purpose to other building residents.

Paramedics role in providing community health

Lastly, an important discussion point from this study is the facilitators of the program: the paramedics. It was clear that the paramedics played a substantial role in the

delivery of the program and its effects on the provision of medical care, and social support and connectedness in the building. Further a discussion on the implications of community paramedicine programs on paramedics ability to utilize both their “soft” skills and emergency skill set will be explored.

Community paramedicine programs require an alternative approach to patient care than the traditional EMS role focused on emergency response. While there is literature to support that paramedics want to be involved in community paramedicine initiatives (Reeve et al, 2008; Kennedy, 2010), exploring this role amongst paramedics who have transitioned from their traditional role to participating in community paramedicine initiatives. Addressing patients long term medical and social needs is in contrast with paramedics normal skill set, which values “timeliness”, short term interactions with patients, and transfer of care to another health care provider (Brydges et al, 2014). Alternatively, community paramedicine programs, such as the one studied here, address patients long term needs in the community, often spending a longer amount of time with them, and on multiple occasions. In addition, the CHAP-EMS program did not retain the familiar process of formally transferring patient care to another health care provider (although the paramedics did interact with and refer participants to other health care providers). Thus, the CHAP-EMS program represents a departure away from this traditional dogma of EMS, and as demonstrated by the results of this study, paramedics adapted their traditional skills to this new role in unique, and beneficial ways.

First, even while working in a community paramedicine program, the paramedics retained elements of their “emergency” role. The “emergency” skill-set and knowledge of the paramedics were highly valued by residents even though this was not the focus of

the program. Participants relied on the paramedics to step in when there was an “acute” medical concern, and trusted the paramedics’ judgment should this occur. It is of interest to note that the emergency role of paramedics was valued regardless of the fact that they did not have their standard equipment, or an ambulance, elements commonly associated with emergency response.

However, the residents frequently told stories of residents who were “saved” and unless participants had personally benefitted from their other “non-acute” needs being addressed, these stories were neglected in the discourse. These findings are significant as the shift to incorporate a non-emergency focus into paramedicine occurs. Although there is evidence to suggest that both the emergency and non-emergency roles of the paramedics were utilized and valued, the emergency role was consistently important and although it may not be of more value, it was the topic residents enjoyed discussing in the discourses regarding the paramedics and they valued this role the paramedics played.

In addition, the “soft skills” of the paramedics were important in the operation of the program. Personal factors, such as the paramedics personalities and attitude, made residents feel like they were part of a social group and community, and facilitated interactions between the paramedics and residents. The paramedics commitment to the program was apparent. This was commonly seen, such as when a paramedic who no longer operated the program attended a session to see the residents. While many general comments were made regarding the personalities of all the paramedics, consistently one of the regular paramedics who operated the program played a key role for residents. The efforts on behalf of this paramedic made substantial impacts into other areas of the building, such as being involved in the building association and collaborating with other

organizations within the building, such as the assisting with the buildings garden. In addition, the paramedics would often spend weeks addressing a single participants concerns, such as issues with home care, nutritional support, or follow up on chronic health care problems.

Both the soft skills and emergency skill sets of the paramedics were of value to the participants of the program, and compared to other health care providers may be unique to the paramedic profession. While the research on community paramedicine initiatives is still limited, there have been several studies highlighting the importance of paramedics in a public health role and their ability to identify patients needs and refer them to appropriate providers (Kue et al., 2009). Indeed in their traditional role, paramedics are often well positioned to address and respond to patients long term medical and social needs due to their direct observation of the patients environment. These skills and attributes may have translated over into the operation of the CHAP-EMS program.

There was also evidence that the personalities of the paramedics operating the program influenced aspects of its success, and to date, there is little research specifically on the personalities of paramedics that would assist with explaining the influence of their personalities on patient care. However, there is evidence to suggest that paramedics value their role as patient advocates, and often feel they have a professional obligation and responsibility to do more for their patients (Brydges et al, 2014). These professional obligations and roles as patient advocates may be a powerful influence over paramedics patient care. Findings from this study echo this theme. Paramedics were often described as going above normal expectations to address patients needs, and this was frequently

observed at the sessions. The paramedics at times would spend a large proportion of the day helping manage complex participants needs, some of which would require weekly follow up with a wide range of health providers.

In addition having a similar group of paramedics providing the program facilitated trusting relationships that allowed some participants to address concerns that were otherwise neglected, and resulted in weekly follow up for complex patients cases. However, given these findings, it is important to note that as these are modified paramedics, they will in most cases, return to the road and will no longer operate the program. Given the findings of this study, whether or not the utilization of modified paramedics questions if this is a successful strategy. On one hand, utilizing modified paramedics may not only be an opportunity to perform meaningful work, but may also have benefits to their patient care skills. Receiving feedback is rare in EMS (Brydges et al, 2014) as it would require seeing the patient on another occasion or receiving feedback from the EMS service, which would be a time consuming task. However, at the CHAP program, paramedics were able to see participants regularly, and in many cases, learn of their outcome and see them improve following an acute event, such as a myocardial infarction. This may prove to be an important education tool for paramedics and fulfill a void that is neglected in many other aspects of their job.

However, having a consistent paramedic staff operate the program may not be feasible given the constraints many EMS are facing. Although community paramedicine programs have recently received funding from the MOH, these programs are still in their infancy. Currently issues such as funding or concerns from other community agencies providing similar services may hinder the development of community paramedicine

programs. As more research is conducted on these programs, this may result in larger policy changes and consistent funding, allowing suggestions such as this one to take place.

Implications for future research

This study emphasizes the importance of qualitative research on community paramedicine. Qualitative research allows for an investigation and insight into why people do things, how they perceive and experience life events, and the assumptions they are making. It is clear from this study that the participants and non-participants discourses of the CHAP program are unique and complex, but offer important insights into how the program is impacting individuals on a personal level. By examining the CHAP program through this lens, insights into how older adults has helped people and in what ways has been explored. This is important as the original goals of the program and how it is functioning may not be reflective of how older adults perceive and experience the program.

From this study, important questions are raised. Future research needs to address how these initiatives are operating in other contexts, such as the same program but in a different building or community. Further, it would be of particular interest to gain an in-depth understanding of the non-participants of the program and non-English speaking residents.

In addition, it was apparent from the results of this study that while the program was not intended to directly impact social isolation, support, social capital and connectedness, it made an impact in this area for many participants. Future research

should address whether or not this should be a direct goal of these programs and how to measure these effects in different ways.

Further, this study highlights paramedics roles both as social facilitators, and their role in providing patient care. It is evident from this study that paramedic's roles are complex and may be unique to them considering their traditional "emergency" identity yet expertise in communication and "soft" skills. The importance of paramedics personality on aspects of this program further raises the question of what type of health care provider will be the most successful in providing these types of programs.

The emergence of community paramedicine programs has important implications for future research on both their efficacy within the health care system, and for the workers providing them. Community paramedicine programs mark a shift within the EMS community towards addressing patients long term medical and social needs. How paramedics roles change and are perceived by the public will continue to be an important consideration as the community paramedicine programs becomes more common. In addition, questions such as how do paramedics perceive these role transitions and what is the underlying "culture of care" for paramedics as this trend to include community paramedicine should be addressed in future literature. Given many of the skills required to operate community paramedicine programs are in contrast with traditional values of EMS, how paramedics view this new role and the potential conflicts that arise should be addressed in future research. Lastly, consistent with the findings suggested by Bigham et al (2013), addresses issues such as safety of such initiatives should be considered as community paramedicine research moves forward.

Limitations

As this program is currently only in one building, these results are not generalizable and it is unknown how it would operate in other buildings, with different demographics and a different EMS providing it. A large limitation of this study is that no interviews were conducted with residents who did not speak English, due to the lack of a translator. Although attempts were made to interact with this group, they were unsuccessful and it is thus unknown how this demographic perceives and experiences the program. Given the large proportion of non-English speaking residents in the building and other areas, understanding how this group experiences community paramedicine and health care is of interest.

In addition, due to difficulties contacting non-participants of the program, only short interviews were conducting with this group. While the information from this group provided insights into how non-participants may perceive the program these results are not generalizable and little in-depth knowledge is known about this group.

Further the participant observation was only conducted by the primary investigator. However, the background of the researcher was clarified, as well as detailed notes were taken weekly and reviewed by both members of the research team, with the results being coded by both researchers.

CONCLUSION

Overall this case study of a community paramedicine program highlights the complexity of how a community health program targeting older adults operates on the ground. The perceptions and experiences of older adults residing in a building with a community paramedicine program are complex, however it was clear that distinct themes emerged from these views and experiences. The participants of the program highly valued the program, the paramedics, and the change in social dynamics to the building. The program offered an opportunity for social participation, an increase in access to support and resources, and a trusting avenue to discuss their health. Further, the paramedics provided support, relationships (both professional and personal), a sense of community, and opportunities for participation and engagement amongst building residents.

It is clear from this study that the use of paramedics in a community health assessment program is complex and how it is perceived and utilized is not fully understood. Considering the social aspect of these programs and how they are being experienced and perceived by the population targeting them is important in gaining a well rounded understanding of these initiatives. From this study, it has been demonstrated that these views vary immensely, and that the context in which these changes are taking place is an important consideration to take as these programs expand in the future.

The analysis of resident's experiences and perceptions of the CHAP program provides an example of how older adults mitigate and cope with the downsizing of Ontario health care, in which individuals are more frequently responsible for their medical and social needs. The flexibility of the CHAP-EMS program allowed to

paramedics operating this health promotion program to address a wide range of problems for participants, many of which extended beyond cardiovascular health and diabetes monitoring. Paramedics traditional skill set, along with their experience in “soft” skills and interacting with a wide variety of patient care types further suggests that they made be ideally positioned to address many community health problems facing older adults. What the CHAP program achieved for older adults, was a return to addressing broad social and medical issues of residents, and this is unique in a constrained health and social services system, which often does not have the time to address these concerns.

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