

AE520 Research Proposal

A new perspective on continuing mental health education: A case study on how reflective practice can improve resilience in paramedics.

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## **Introduction**

The purpose of this study is to reveal a new perspective on continuing mental health education. I am interested how the use of reflective practice can improve resilience to occupational stress injury in paramedics. As stressful events are inherent in the role of a paramedic, building resilience skills can assist in psychological processing of the experiences, facilitating growth where there is usually distress (Austin, Pathak, & Thompson, 2018). Using a case study methodology, I wish to understand; a) if and how paramedics use reflective practice to learn in order to navigate the daily, potentially traumatic, experiences they are presented with; b) how learning from reflective practice helps them identify barriers and how they come to strategies that enable them to build resilience; and c) I am also interested if this reflective learning is transformative.

## **Context for the Study**

There exists abundant research on the detrimental effects of critical incidents impacting Emergency Medical Service (EMS) professionals. This research suggests a high incidence of occupational stress injury (Austin, Pathak, & Thompson, 2018; Pietrantonio & Prati, 2008) with 14.6% of paramedics suffering Posttraumatic Stress Disorder (PTSD) (Streb, Haller, & Michael, 2014). PTSD research historically tended to focus on negative effects resulting from trauma rather than the potential for positive effects (Tedeschi & Calhoun, 1996). Roepke (2014) tells us the last 20 years has seen an increase in researching the effectiveness of interventions that may promote posttraumatic growth (PTG), although Roepke focuses on interventions after experiencing incidental traumatic experiences and not as a resilience strategy. The grey literature, fueled by media discourse, focuses on PTSD suggesting paramedic PTSD rates upwards of 25% (Public Services Health and Safety Association, 2018; Tema Center Memorial Trust, 2016) thus bringing critical incidents into the public eye. A closer examination reveals that

the grey literature data was gathered through paramedic self-declared PTSD symptomology which potentially could have included burnout syndrome due to similar causes and symptomology. Approximately 25-80% of other critical care health care providers such as nurses and Doctors experience burnout syndrome with varying levels of severity, which can possibly affect the care provider's mental wellness, potentially leading to PTSD (Arrogante & Aparicio-Zaldivar, 2017).

This study differs from the predominant research about the effects of critical incidents paramedics experience and the mitigation of the potential onset of PTSD, as its focus is resilience as a resistance factor to the day to day critical stress paramedics experience, that could lead to burnout syndrome, or in extreme cases, PTSD. Critical incidents are considered high risk to the paramedic's mental health but have a lower probability of occurring. Critical stress, like critical incidents, also carries a high mental health risk (Hayes, 2018; Pietrantonio & Prati, 2008), but has a higher probability of occurring due to its ongoing and repetitive nature. There are recent studies on self-care approaches as a resilience strategy (see Bettney, 2017; Mills, Wand, & Fraser, 2018), and improving EMS culture and enhancing resilience as an adaptive and recovery strategy (see Pietrantonio & Prati, 2008; Streb, Haller, & Michael, 2014), but there are very few that focus on teaching resilience (Austin, Pathak, & Thompson, 2018; Clompus & Albarran, 2015) and none on building resilience as a resistance strategy; a strategy used in preparation for adversity from a preventative and proactive point of view, viewed through the lens of adult education.

### **Position of the Researcher**

My recent employment history includes roles such as Paramedic Field Superintendent, Paramedic Commander of Training, and Paramedic Deputy Chief. I have over 30 years of experience in the field of paramedicine and related industries, and have personally overcome the

effects of occupational stress injury. In addition to my personal experience, since 2005 I have had the privilege of facilitating courses for paramedics on Emergency Medical Services (EMS) stress, occupational stress injury, and resilience strategies, and led in the design of a paramedic service's PTSD prevention plan, stimulating my interest in investigating the topic further; examining how I successfully navigated my own daily critical stressors and seeking ways to help improve the resiliency of fellow first responders.

### **Definitions of Terms**

**Burnout Syndrome:** is a negative reaction to chronic occupational stress where conflict between values and professional roles exist, characterised by exhaustion, depersonalisation, and reduced personal accomplishment, which may have negative mental health consequences such as anxiety, depression and PTSD (Arrogante & Aparicio-Zaldivar, 2017).

**Compassion satisfaction:** is similar to PTG and includes positive feelings and finding meaning resulting from critical stress (Pietrantonio & Prati, 2008).

**Critical stress:** is an accumulation of stress over time that had a significant impact on the individual. Critical stress can also include stress caused by a single or multiple critical incidents (Austin, Pathak, & Thompson, 2018).

**Critical incident:** is a major crisis, event or turning point, that may or may not be dramatic, but will have had significant impact, either positive or negative, on the individual. (Hayes, 2018; Hughes, 2007; Austin, Pathak, & Thompson, 2018; Pietrantonio & Prati, 2008).

**Occupational Stress Injury (OSI):** is a common term used to describe mental injury caused by a stressful event(s), or 'critical stress' resulting from one's occupation, that could lead to a diagnosable mental disease or disorder.

**Posttraumatic growth (PTG):** is an experience of positive change as a result of crisis that aids in adapting to the adversity (Ochoa, Casellas-Grau, Vives, Font, & Borràs, 2017; Lindstrom, Cann, Calhoun, & Tedeschi, 2013). For instance, how one relates to one's colleagues; perceptions of self; new possibilities; new appreciation for life; spiritual change, etc. (Austin, Pathak, & Thompson, 2018).

**Resilience:** is the ability to adapt to, recover from, or bounce back from adversity or ongoing stressors (Austin, Pathak, & Thompson, 2018; Streb, Haller, & Michael, 2013). It can also mean resistance to, and protection from adversity (Clompus & Albarran, 2015; Streb, Haller, & Michael, 2013).

### **Literature Review and Theoretical Framework**

Resilience has an inverse relationship to stress (Austin, Pathak & Thompson, 2018), is adaptive in nature (Streb, Haller, & Michael, 2014), can reduce levels of distress resulting from critical incidents (Pietrantonio & Prati, 2008), possibly facilitate more positive outlooks sometimes resulting in posttraumatic growth (PTG) (Austin, Pathak, & Thompson, 2018), or lead to compassion satisfaction (Pietrantonio & Prati, 2008). Some authors suggest that resilience can be taught in a classroom (Austin, Pathak, & Thompson, 2018; Streb, Haller, & Michael, 2014). Others suggest resilience can be developed over time through experience (Clompus & Albarran, 2015; Streb, Haller, & Michael, 2014). Austin, Pathak, and Thompson (2018) explain that stress and hardship can lead to higher psychological functioning but do not discuss it as an occupational stress injury preventative factor. Hayes (2018) suggests that critical introspection and critical reflexivity, both components of higher psychological functioning, can contribute to the development of resilience, and that critical reflection on experience, the type of reflection that can potentially lead to transformational learning, is potentially a key to paramedic resiliency to occupational stress injury.

The significance of learning to think critically, to use reflective practices and to critically reflect, is to see our own beliefs and values in action, to become aware of possible distortions in our perceptions and of those around us, and to act on the new interpretations of our reality arising from our reflection. It usually starts with a disequilibrium, what Mezirow (2012) calls a ‘disorienting dilemma’, where individuals encounter unexpected situations that challenge their previous knowledge acquired through past experiences and which causes them to consider their beliefs or perceptions that initiates the process of critical reflection (Brookfield, 1987; Cranton, 2016; Kreber, 2012; Mezirow, 2012; Ochoa, et al., 2017; Pretorius & Ford, 2016; Walinga & Rowe, 2013). Merriam and Bierema (2014), and Mezirow (2012) suggest it is through systematic reflection where we make new meanings of experience, we change, or transform. Brookfield (2012) and Cranton (2016) further explain, critical reflection changes the way an individual sees themselves in the world, changing their perspective of their constructed reality, ultimately changing the way an individual thinks, feels, and behaves, (Cranton, 2016; Fazio-Griffith & Ballard, 2016; Mezirow, 2012). In transformational learning, it is not just the meaning itself that changes, but the way we know that changes (Brookfield, 2012; Charaniya, 2012; Merriam & Bierema, 2014), changing the lenses through which we view the world.

There is more to be resilient to than just critical incidents. Paramedics watch life and death unfold daily, becoming inherent disorienting dilemmas that may challenge each individual paramedic’s beliefs (Hayes, 2018; Pietrantoni & Prati, 2008), possibly creating or altering their lenses. For transformational learning to occur, an openness to change in the individual must exist (Brookfield, 2012; Charaniya, 2012; Mezirow, 2012; Taylor & Cranton, 2013). Brookfield (1987) suggests critical thinking can resolve the anomalies between the belief of what is supposed to be happening and what appears to be taking place.

According to Merriam and Bierema (2014), the heart of learning is “engaging in, reflecting upon, and making meaning of our...physical, emotional, cognitive, social or spiritual [experiences]” (p. 105). Mezirow (2012) had already brought attention to our understanding that the interpreting and encoding of our experiences in such a holistic but individualistic manner, we create our own realities, explaining that the meanings we have applied to our personal past experiences serve as our unique lens through which we view the world, but these same prior experiences can also act as a barrier blocking learning (Merriam & Bierema, 2014; Toblin & Adler, 2016). According to Coady (2013), Fazio-Griffith and Ballard (2016), and Heddy, Sinatra, Seli, Taasobshirazi, and Mukhopadhyay (2017), by encouraging reflection on experiences from different perspectives, challenging the individual’s beliefs and values, new ways of knowing can be created, contributing to resiliency. This transformational learning framework will guide an analysis of how paramedics have constructed meanings as a result of their experiences, seeking to understand the learning processes that led to positive transformations; searching for how they experienced posttraumatic growth (PTG) versus distress.

### **Research Problem and Purpose**

As a stress resiliency strategy, the question the literature leaves is whether or not an individual can learn how to prepare for potential critical stressors. The literature suggests that it is the influence or the lens of the individual’s beliefs that create the reality they respond to. Facilitating or guiding an individual to become a self-directed critically reflective learner; to become more open to transformational learning, may serve as a self-directed resilience strategy.

The purpose of this study is to reveal a new perspective on continuing mental health education, to improve resilience to occupational stress injury in paramedics through the use of critical reflection. The objective of this study is to identify if paramedics can become transformational learners, self-initiating their own cognitive restructuring, seeking out



opportunities to change, and adapting to accommodate new meanings derived from experiences into their belief structures.

### **Research Questions**

The central question is; How can paramedics be trained to think critically in order to prepare for critical stressors as an occupational stress resiliency strategy?

To answer this question, I need to understand if and how paramedics use reflective practice to learn in order to navigate the daily, potentially traumatic, experiences they are presented with. My sub questions are:

- What resiliency strategies do paramedics use following the critical stressors they experience?
- Do they learn or change as a result?
- What changes took place as a result?
- What events, actions, people, or supports helped them change?
- How might reflective practice be used to foster transformational learning as a resilience strategy?

### **Research Methodology**

The most common type of qualitative research is interpretive research, which is based on the assumption individuals develop subjective meanings of their personal experiences, constructing their own realities (Merriam & Bierema, 2014). The goal of this study is to understand how the use of reflective practice can improve resilience to occupational stress injury in paramedics; to see if and how paramedics use reflective practice to learn in order to navigate the daily, potentially traumatic, experiences they are presented with; and subsequently, discover what strategies can be used by others to do the same. The underlying constructivist philosophical approach guides the case study methodology.

According to Merriam and Tisdell (2016), a case study is an inquiry investigating a phenomenon within a bounded system. The phenomenon being studied is reflective practice as a strategy to be resilient to critical stressors in the bounded system of paramedic practice. Often, case studies will be intrinsic, where one seeks understanding of an individual case for its own merit. I will be using an instrumental case study methodology that looks into wider issues affecting the bounded system (Carolan, Forbat, & Smith, 2016). For example, in this case study, the issue isn't a specific scenario, or a single individual being studied. Critical stressors are day to day occurrences all paramedics will experience and becoming resilient to these stressors is an issue that goes beyond the individual and specific critical incidents. To contextualize the study, the experiences in question are the ones that come directly from paramedic practice that had a significant impact on the individual.

#### **Research Site and Access**

The study will take place in Northeastern Ontario, Canada where I have developed personal and professional relationships with paramedics, Chiefs, and Deputy Chiefs as a result of my past employment in the geographic area.

#### **Research Participants**

This study is to investigate paramedic resiliency to occupational stress injury, therefore a purposeful-sample (as described below), of four to six paramedics will be recruited, in addition to a secondary data collection method; my own participation in the form of a self-study.

#### **Criteria for selection.**

Participants should have the equivalent of at least two-years full-time professional paramedic experience, sufficient time to have experienced the effects of critical stress.

Participants should be able to self-identify personal growth arising from the critical stressors they

have experienced. This does not preclude those who may have experienced periods of distress prior to experiencing growth.

### **Recruitment and selection**

Approval to solicit volunteers will be sought through the Chiefs/Deputy Chiefs of paramedic services located in the geographic area of the study. Each paramedic service has a group email address that sends email to all paramedics within the service. The Chiefs/Deputy Chiefs have the organizational authority to approve the request to seek volunteers through their email systems and will be requested to either forward the paramedic volunteer recruitment email seeking those who may be interested in participating, or supply me with their paramedic group-email address allowing me to email the paramedics directly. Subsequently I will email the Invitation to Participate directly to paramedics who have shown interest, outlining the research, the importance of the research, and the desired outcome; to understand paramedic resiliency and to build a knowledge base that can be used to help other paramedics become more resilient critical stress. If I do not receive sufficient response, a secondary approach will be to use snowball sampling and directly contact paramedics through my network of contacts, and request them to distribute the invitation to colleagues and to Facebook groups that restrict membership to working paramedics. I will select the first six participants who meet the criteria outlined above.

I will then contact the selected participants and allow for opportunity to ask questions about the study, the role of the participants, confidentiality, possible outcomes, potential risks, and dissemination plan, to ensure the participant is fully informed of the research and any potential risks. Additionally, mental health self-care and counselling information will be provided to all participants (Appendices F and G). Subsequently, the data collection interview will be scheduled where, prior to starting the interview, the invitation to participate and consent forms will be reviewed, and consent documents will be signed if not already done so.

## **Data Collection Methods**

In this study, I will use three approaches to data collection: individual semi-structured interviews, a self-study, and a focus group, inviting only those who participated in the individual interviews to participate. The retrospective investigation into each paramedic's experiences will align with a constructivist approach (Carolan, Forbat, & Smith, 2016), identifying the meaning paramedics ascribed to their day to day experiences, something that cannot be observed (Patton, 1990; Merriam & Tisdell, 2016), revealing what resilience strategies worked for themselves and what could work for others.

### **Interviews and Self-study**

The primary data collection method will be face-to-face interviews of the participants. Interviewing is a conversation with purpose whereby asking questions, the other person's perspective can be entered. An interview guide and a short list of open-ended questions can be found in Appendix E. The guide is designed to take each participant through the same sequence to focus on the topic of growth, while allowing for conversation to occur where information can be freely given, and flexibility exists to explore new concepts (Patton, 1990; Merriam & Tisdell, 2016).

The concept of this study was born through my career as a paramedic and resulting self-reflection on my own experiences. These same experiences can also be a powerful story that through systemic inquiry can reveal valuable insights into the phenomenon (Hamilton, Smith & Worthington, 2009). As case study research is typified by studying a multi-perspective of the phenomenon (Carolan, Forbat, & Smith, 2016), my story can add a valuable perspective to the data. The secondary data collection method of self-study will use the interview guide to assist me in writing my story, to help me understand my own meaning construction (McAllister, Whitefield, Hill, Thomas, & Fitzgerald, 2006) and add to the multi-perspective of the case study.

As knowledge is constructed through critical reflection on experience, I will ask myself and paramedics to reflect on experiences that may have challenged beliefs and the subsequent thought processes, focusing on those that may have led to positive growth, where I can further explore my own questions and those of others (LaBoskey, 2007). The interview guide will encourage responses to be freely given through the personal narrative of experience, avoiding the events themselves but focussing on coping strategies that fostered learning and positive growth, probing to understand what helped and what may have hindered the process of growth, and what actions were used to solve problems. Then, as the researcher, I will critically reflect on my narrative; a 'self-critical reflexivity', to see my thought processes through alternative lenses (Ham & Kane, 2007). The interview responses will follow a similar process. The interviews will be audio-recorded and transcribed by myself. The interview will be approximately 60 minutes in duration, held in a private room at a local but central post-secondary school location or public library.

### **Focus Group**

The focus group research method is an informal discussion about the topic being researched, with specific participants, led by a moderator or the researcher themselves. They are useful because they allow participants to share common experiences, generating meaningful dialogue in naturally occurring conversations, (Morgan, 1997; Wilkinson, 1998). The focus group will allow for interaction between the participants as well as the researcher to further discover the meanings created by participants (Wilkinson, 1998). As a researcher and participant, I will be facilitator and co-learner, facilitating the discussion and participating in the co-creation of new meanings (Cranton, 2016; Merriam & Bierema, 2014). The focus group will enable me to validate my emerging understanding, to better understand how changes in perspectives and

beliefs may have resulted in personal growth for myself and others, and potentially identify resilience strategies that may help others.

The focus group guide (Appendix H) outlines how I will lead conversations with participants. The conversation style used will be a less structured approach, generating broad discussion and interaction allowing discovery of insights I may not have thought about (Morgan, 1997). The general questions of what resilience strategies worked and what might help others, will drive the conversations while allowing the flexibility to clarify and summarize information as well as to explore unanticipated responses through asking further clarifying questions (Merriam & Tisdell, 2016). The focus group will be approximately two hours in duration, held in a private room at a local but central post-secondary school location or public library. The focus group will be audio-recorded and transcribed by myself.

Analysis for the self-study, interviews, and focus group will be ongoing, occurring as soon as possible after transcription and respondent validation. There is potential for volumes of data to be revealed, some that is disparate or contradictory. The process of analysis will be inductive and comparative, to understand the experiences of the paramedics and provide a structural description (Merriam & Tisdell, 2016). Case study analysis draws from multiple approaches but follows general stages. The first step is category aggregation, where all of the data from the multiple sources will be compiled into a case record and parts can be fitted together and sorted topically preparing the data for analysis. The next steps will be identification of patterns, where the data will be compared and generalized to reveal meaning and produce interpretation (Carolan, Forbat, & Smith, 2016; Merriam & Tisdell, 2016) and subsequently be coded into themes and subthemes that may arise (Litchman, 2012), hopefully revealing reflective practice, how it was used to build resilience, possible strategies to teach others, and if transformational learning occurred and contributed to growth experiences.

### **Research Budget**

No funding is required.

### **Research Trustworthiness**

My personal story will become part of the data not only to reveal my positionality, but also as a self-study, being subject to analysis thus providing a continual awareness of my biases for myself and others, and a mechanism to assist in triangulating the data (Glesne, 2006; Merriam & Tisdell, 2016).

To augment trustworthiness, transcripts of interviews and the focus group will be provided to participants for respondent validation (Merriam & Tisdell, 2016). The final two methods that promote credibility will be keeping a detailed audit trail of methods and procedures throughout the study, and providing rich, thick descriptions to contextualize the study so that readers can assess whether the findings can be transferred (Merriam & Tisdell, 2016).

### **Ethical Provisions**

Basic ethics principles include; informed consent; do no harm; confidentiality and anonymity; and participants have the right to withdraw at any time, however, data gained from that participant to the date of withdrawal will be kept if they agree. To obtain informed consent, all participants will receive the Invitations to Participate (Appendix C & F) which will include information about the study and consent forms (Appendix D & G). Additionally, to be fully informed, my positionality must be made known to participants. As previously suggested, my positionality will categorize me as an insider of the paramedic community. As an insider, it is impossible to remain neutral, but it does at minimum need to be realized as potentially introducing bias. This bias precludes the role of researcher as a peripheral research group member as I am already a group member, fully immersed in the culture with similar values and goals, which requires a higher level of involvement as a full member researcher (Dwyer &

Buckle, 2009). My personal story will become part of the conversations and resulting data, not only to provide a continual awareness of my biases, but also to act as a comparison to the data from others.

To ensure no harm is caused to the participants, the study will not ask the participants to revisit their past traumas, only the processes they employ in response to the critical stressors they experience on a day to day basis. To assist in mitigating any potential for posttraumatic injury, packages will be provided to all participants including a stress-related mental health fact sheet published by the Mental Health Commission of Canada, and information on free counselling agencies, hotlines, and websites, (Appendices F and G).

To ensure confidentiality, pseudonyms will be used. All material will be digitally stored in password protected devices. Audio recordings will be destroyed once transcribed and transcripts have been reviewed and validated by participants, allowing for corrections or removal of sensitive material. Any hard-copy documents will be kept under lock and key. Given the nature of a focus group, anonymity is not possible and while I will ask participants to keep the discussions confidential, I cannot promise they will do so.

### **Significance and Contributions of Research**

As a stress resiliency strategy, the question the literature leaves is whether or not an individual can learn how to prepare for potential critical stressors. The concept of this study germinated decades ago as a result of a lengthy paramedic career, and several personal epochal life and career events. Throughout and as a result of these experiences, I began teaching new paramedics and recognised the importance of knowing how I navigated my own daily stressors, and sought ways to help improve the resiliency of the new paramedics I was training. This study is an extension of 13 years of learning that transformed and continues to transform how I see the world. The study will document and interpret the meanings I and other paramedics have created



from the day to day stressors we experience, and will assist in gaining a deeper understanding of the process used by myself and others to deal with critical stressors and discover strategies can be used by others to do the same.

When one makes sense of one's experience, one constructs the reality one lives in. This builds the underlying interpretive and constructivist philosophical foundation of this study. The information gleaned from this research may reveal a link between transformational learning theory and the processes that promote posttraumatic growth and possibly how reflective practice can contribute to the mental well-being of paramedics. The outcomes of this study may be a new perspective on continuing mental health education to improve resilience to occupational stress injury in paramedics through fostering transformative learning, using the lens of reflective practice. Finally, the results of the research may be used to support my work as a psychological health and safety consultant, specializing in mitigating reactions to chronic and acute stress, where I can continue to improve the resiliency of fellow first responders.

### **Dissemination Plan**

The dissemination plan includes versions of the literature review being published in a national trade magazine, as well as potential presentation of the research report at conferences as well as industry publications and peer reviewed journals. The final research report will be submitted to my academic advisor and other members of the Dept. of Adult Education (St. FX).

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## Appendices

- Appendix A: Email Letter to Chiefs
- Appendix B: Email Seeking Paramedic Volunteers
- Appendix C: Invitation to Participate (Interview)
- Appendix D: Consent Form (Interview)
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### Appendix A: Email Letter to Chiefs

Dear Chief \_\_\_\_\_,

My name is David Wolff, a former Paramedic Deputy Chief (A) and former Paramedic Commander of Training. I am currently completing my Master's of Adult Education at St. Francis Xavier University, Antigonish, Nova Scotia. One of the requirements of the degree is to complete a research study. My study comes from a deep personal and professional interest and is very timely and important in the context of front-line paramedics and other health care providers.

The title of the study is "A new perspective on continuing mental health education: A case study on how reflective practice can improve resilience in paramedics". I am seeking 4-6 paramedics who would be willing to participate in the study. The purpose of this letter is to request your permission to use your email system to seek volunteers. If possible, can you please forward the email below to your staff? Alternatively, you can provide me with your paramedic group email and I can email the paramedics directly. The content of the email to paramedics is below.

Thank you,

David Wolff  
MAdEd(student)  
Adult Education Department  
St. Francis Xavier University

x2017tcj@stfx.ca  
705-690-1675

## Appendix B: Email Seeking Paramedic Volunteers

Dear Paramedics,

You are invited to participate in a research study designed to investigate paramedic resiliency to critical stress and the potential connections of reflective practice as a resiliency strategy, to learning and growth.

Participants should have the equivalent of at least two-year full-time professional paramedic experience, sufficient time to have experienced the effects of critical stress. Participants should be able to self-identify growth (an experience of positive change as a result of crisis that aids in adapting to the adversity) arising from the critical stress. This does not preclude those who may have experienced periods of distress that may have occurred prior to growth.

Participants will be asked to participate in a face-to-face interview lasting approximately 60 minutes and subsequently be invited to participate in a single, 2-hour focus group. Both will be conversational, and will ask you to reflect on your professional experiences that may have challenged your belief systems and the subsequent thought processes, focusing on those that may have led to positive growth. The events and /or critical incidents themselves will not be discussed as the focus is on resiliency strategies that fostered learning and positive growth.

This research is being conducted as part of the requirements for a Master's Degree in the Department of Adult Education at St. Francis Xavier University, in Antigonish, N.S.

Thank you,

David Wolff  
MAdEd(student)  
Adult Education Department  
St. Francis Xavier University

x2017tcj@stfx.ca  
705-690-1675

## **Appendix C: Invitation to Participate (Interview)**

**Title of Research:** A new perspective on continuing mental health education: A case study on how reflective practice can improve resilience in paramedics.

**Name of Researcher:** David Wolff, [x2017tcj@stfx.ca](mailto:x2017tcj@stfx.ca), Graduate Student, Adult Education Department, St. Francis Xavier University

### **Invitation to Participate**

You are invited to participate in a research study designed to investigate paramedic resiliency to critical stress and the potential connections of reflective practice as a resiliency strategy to learning and growth. To participate, please complete and forward the attached consent form.

### **Purpose and Description of the Research**

Although critical stressors can cause posttraumatic stress injury, they can also foster growth. The purpose of the research is to identify the actions paramedics took as a result of experiencing critical stressors that may have led to their personal growth. This research is being conducted as part of the requirements for a Master's degree in the Department of Adult Education at St. Francis Xavier University, in Antigonish, N.S.

### **Who should participate?**

Participants should have the equivalent of at least two-year full-time professional paramedic experience, sufficient time to have experienced the effects of critical stress. Participants should be able to self-identify growth (an experience of positive change as a result of crisis that aids in adapting to the adversity) arising from the critical stress. This does not preclude those who may have experienced periods of distress that may have occurred prior to growth.

### **What Will be Required of Participants, Including the Time Commitment**

Participants will be asked to participate in a face-to-face interview which will be conversational, lasting 60 minutes, and which will ask you to reflect on your professional experiences that may have challenged your belief systems and the subsequent thought processes, focusing on those that may have led to positive growth. The events and /or critical incidents themselves will not be discussed as the focus is on resiliency strategies that fostered learning and positive growth. Subsequently you will also be invited to participate in a focus group.

### **Participation is Voluntary; Right to Withdraw Without Negative Consequences**

Participation in the research is voluntary and participants may withdraw from the research at any time; however, data gained to the date of withdrawal will be kept if you agree. To withdraw from the study, you can let me know verbally in person, by phone, or by text message or email. The decision to withdraw from the study at any point shall be without negative consequences. The



interview will be audio recorded. The participant has the right for the taping to be stopped at any point upon request. Stopping taping or refusing to answer any questions does not terminate involvement in the research project. The choice to participate or withdraw will have no effect on your employment, profession, or any other entitlements. The transcript of the interview will be returned to you to review and you will have the right to make corrections or delete any information.

### **With Respect to Potential Benefits and Potential Harms**

The potential benefits of participating in the study is an opportunity to discuss resiliency and gain a better understanding of how a reflective practice can lead to growth. An additional benefit is being able to contribute strategies to help other paramedics become more resilient. It is possible, however, that individual reflection and conversations with others could cause memories of events to resurface that might result in posttraumatic stress injury. To mitigate this possibility and offer support, you will be provided with self-care information as well as contact information for local crisis hotline and warmlines.

### **Confidentiality and Anonymity**

All efforts will be made to maintain confidentiality and protect the privacy of participants. Participation or non-participation will be kept in confidence. All recorded data files and transcripts will be kept in the researcher's password-protected computer system and any hard copies of documents will be kept under lock and key. Pseudonyms will be used for participants in all reports and presentations. Audio recordings will be destroyed once transcripts have been reviewed and validated by participants. No identifying information will be included in any document resulting from this study.

### **Miscellaneous**

All data will be destroyed two years after the submission of the final report to the research supervisor.

### **Contact Information**

#### **Researcher**

David Wolff  
1 Third St., PO Box 264  
Webbwood, ON, P0P 2G0  
Phone: 705-690-1675  
Email: x2017tcj@stfx.ca

#### **Supervisor**

Dr. Carole Roy  
Dept. Adult Education, St. Francis Xavier University  
4545 Alumni Crescent,  
Antigonish, NS, B2G 2W5  
Phone: 902-867-5567  
Email: croy@stfx.ca

### **Appendix D: Consent Form (Interview)**

I have received a copy of the Invitation to Participate for the research project titled “A new perspective on continuing mental health education: A case study on how reflective practice can improve resilience in paramedics.” I have had an opportunity to read the information provided, have had all questions that I may have had answered, and understand I may ask further questions in the future.

I agree to participate in this interview, understanding that I am doing so voluntarily, that confidentiality will be maintained, and that I have the right to withdraw from the study at any point using the means outlined in the Invitation to Participate. I can receive a summary of the study by asking the researcher for a copy.

Name of participant \_\_\_\_\_

Signature of participant \_\_\_\_\_ Date \_\_\_\_\_

Email: \_\_\_\_\_

#### **Contact Information**

##### **Researcher**

David Wolff

1 Third St., PO Box 264

Webbwood, ON

POP 2G0

Phone: 705-690-1675

Email: x2017tcj@stfx.ca

\*Two copies are provided: Please sign one and return to me and keep the other for your records

## Appendix E: Interview Guide

### Introduction script

- Review the invitation to participate and consent form. I will re-inform the participant that confidentiality will be maintained, and pseudonyms will be used in all reports. Have the consent form signed if not already done.
- Discuss who I am, my work history and experiences, and what has led me to conduct this study.
- Discuss the goals and objectives of the study.
- Explain how the interview will be conducted (overview below).
- Discuss risks associated with critical and reflective conversations, and the self-help tool and warm/hotlines.
- Request permission to record the conversation. Inform the participant a transcript of the conversation will be returned to them to review and they will have the right to ask for corrections or deletion of any sensitive information.

### Conversation guide, questions, and possible probing questions/notes

- *Conversation starter/Statement*
  - *Question*
    - *Possible probe*
- Tell me who you are and why you became a paramedic.
  - What has the job of a paramedic been like for you?
- Tell me about your typical day in the role of a paramedic.
  - How do the day to day calls affect you?
    - How do the various calls affect you differently?
    - What influences the differences?
- I am interested in resilience. Tell me about your day-to-day stressful experiences.
  - How did you deal with, or make sense of, your day to day stressful experiences?
    - What helped?
    - What didn't help?
    - Now that you look back, what could have helped?
- I am also interested in growth from stress. Tell me about how your day to day stressful experiences may have changed you as a person.
 

(For instance, how do you relate to your colleagues; your perceptions of yourself; new possibilities; new appreciation for life; spiritual change, etc. (Austin, Pathak & Thompson, 2018

  - What have you learned as a result of your day to day stressful experiences?
    - What has changed?
    - Do you see things in a different way?
    - What contributed to this new thinking?
  - Thinking about those changes, what contributed to the change?
    - How did the change come about?
    - What did you do that led to the change?

- Was there any introspection?
- Was there dialogue with others?

**Closing script**

- Thank the paramedic for participating.
- Reemphasize confidentiality will be maintained, and remind participants they will be supplied with a copy of the transcript for review.

## **Appendix F: Invitation to Participate (Focus Group)**

**Title of Research:** A new perspective on continuing mental health education: A case study on how reflective practice can improve resilience in paramedics.

**Name of Researcher:** David Wolff, [x2017tcj@stfx.ca](mailto:x2017tcj@stfx.ca), Graduate Student, Adult Education Department, St. Francis Xavier University

### **Invitation to Participate**

You are invited to participate in a research study designed to investigate paramedic resiliency to critical stress and the potential connections of reflective practice as a resiliency strategy to learning and growth. To participate, please complete and forward the attached consent form.

### **Purpose and Description of the Research**

Although critical stressors can cause posttraumatic stress injury, they can also foster growth. The purpose of the research is to identify the actions paramedics took as a result of experiencing critical stressors that may have led to their personal growth. This research is being conducted as part of the requirements for a Master's degree in the Department of Adult Education at St. Francis Xavier University, in Antigonish, N.S.

### **Who should participate?**

Participants should have the equivalent of at least two-year full-time professional paramedic experience, sufficient time to have experienced the effects of critical stress. Participants should be able to self-identify growth (an experience of positive change as a result of crisis that aids in adapting to the adversity) arising from the critical stress. This does not preclude those who may have experienced periods of distress that may have occurred prior to growth.

### **What Will be Required of Participants, Including the Time Commitment**

Participants will be asked to participate in a single, 2-hour focus group. Conversations will be about what resilience strategies worked, and what strategies may help others. The emphasis will be on understanding what may have helped and what may have hindered the process of growth, and what actions were used to solve problems. The events and /or critical incidents themselves will not be discussed as the focus is on resiliency strategies that fostered learning and positive growth.

### **Participation is Voluntary; Right to Withdraw Without Negative Consequences**

Participation in the research is voluntary and participants may withdraw from the research at any time; however, data gained to the date of withdrawal will be kept if you agree. To withdraw from the study, you can let me know verbally in person, by phone, or by text message or email. The decision to withdraw from the study at any point shall be without negative consequences. The focus group conversation will be audio recorded. Participants have the right for the taping to be stopped at any point upon request. Stopping taping or refusing to answer any questions does not terminate involvement in the research project. The choice to participate or withdraw will have no effect on your employment, profession, or any other entitlements. The transcript of the

conversation will be returned to you to review and you will have the right to make corrections or delete any information.

### **With Respect to Potential Benefits and Potential Harms**

The potential benefits of participating in the study is an opportunity to discuss resiliency and gain a better understanding of how a reflective practice can lead to growth. An additional benefit is being able to contribute strategies to help other paramedics become more resilient. It is possible, however, that individual reflection and conversations with others could cause memories of events to resurface that might result in posttraumatic stress injury. To mitigate this possibility and offer support, you will be provided with self-care information as well as contact information for local crisis hotline and warmlines.

### **Confidentiality and Anonymity**

Although confidentiality cannot be guaranteed due to the nature of a focus group, all participants will be asked to maintain confidentiality. However, I cannot promise they will do so. All recorded data files and transcripts will be kept in the researcher's password-protected computer system and any hard copies of documents will be kept under lock and key. Pseudonyms will be used for participants in all reports and presentations. Audio recordings will be destroyed once transcripts have been reviewed and validated by participants. No identifying information will be included in any document resulting from this study.

### **Miscellaneous**

All data will be destroyed two years after the submission of the final report to the research supervisor.

### **Contact Information**

#### **Researcher**

David Wolff  
1 Third St., PO Box 264  
Webbwood, ON, P0P 2G0  
Phone: 705-690-1675  
Email: x2017tcj@stfx.ca

#### **Supervisor**

Dr. Carole Roy  
Dept. Adult Education, St. Francis Xavier University  
4545 Alumni Crescent,  
Antigonish, NS, B2G 2W5  
Phone: 902-867-5567  
Email: croy@stfx.ca

### **Appendix G: Consent Form (Focus Group)**

I have received a copy of the Invitation to Participate for the research project titled “A new perspective on continuing mental health education: A case study on how reflective practice and transformational learning can improve resilience in paramedics.” I have had an opportunity to read the information provided, have had all questions that I may have had answered, and understand I may ask further questions in the future.

I agree to participate in this focus group, understanding that I am doing so voluntarily, that confidentiality cannot be promised due to the nature of a focus group, and that I have the right to withdraw from the study at any point using the means outlined in the Invitation to Participate. I can receive a summary of the study by asking the researcher for a copy.

Name of participant \_\_\_\_\_

Signature of participant \_\_\_\_\_ Date \_\_\_\_\_

Email: \_\_\_\_\_

#### **Contact Information**

##### **Researcher**

David Wolff  
1 Third St., PO Box 264  
Webbwood, ON  
POP 2G0  
Phone: 705-690-1675  
Email: x2017tcj@stfx.ca

\*Two copies are provided: Please sign one and return to me and keep the other for your records

### **Appendix H: Focus Group Conversation Guide**

#### **Introduction Script**

- Review the invitation to participate and consent form. Remind the participants that confidentiality will be maintained, and pseudonyms will be used in all reports. Discuss confidentiality as a focus group participant, asking all participants to maintain confidentiality. Have the focus group consent form signed by all participants if not already done.
- Explain how the focus group will be conducted.
- Discuss risks associated with critical and reflective conversations, the self-help tools, and warm/hotlines.
- Request permission to record the conversation. Remind the participants a transcript of the conversation will be returned to them to review and they will have the right to ask for corrections or deletion of any sensitive information

### **Focus Group Confidentiality Script**

Everyone here is asked to keep all information shared during the process confidential, but I cannot promise this will happen. There is some risk that you may reveal personal information that might cause you to feel self-consciousness or embarrassed afterwards. The transcript of the focus group will be returned to you to review and you will have the right to ask for corrections or deletion of any sensitive information.

### **Focus group conversation guide, questions, and possible probing questions/notes**

- *Statement*
  - *Question*
    - *Possible probe*
- Think about our conversations on your day to day stressful experiences, resiliency, and change resulting from your role as a paramedic. I would like to understand their connections; how they are linked together.
  - What resilience strategies worked for you?
  - How did your resilience strategies contribute to your growth as a person?
  - What do you do differently now in comparison to earlier in your career to prepare yourself for your day to day stressful experiences?
  - How would the thinking that originally led to your personal growth be different or the same in other circumstances?
- I am interested in your ideas.
  - What resilience strategies would you recommend to other paramedics to navigate their daily experiences?
    - How would your advice be different for new and experienced paramedics?
    - How would you suggest teaching the strategies to others?

### **Closing script**

- Thank the paramedic for participating.



- Reemphasize confidentiality will be maintained, ask all participants to respect the confidentiality, and remind participants they will be supplied with a copy of the transcript for review.

## Appendix I: Building a Self-Care Plan

This document is a stress-related mental health fact sheet published by the Mental Health Commission of Canada, one of two documents provided to all participants to assist in mitigating the potential for posttraumatic injury.



### HELPING YOURSELF AND OTHERS AFTER EXPERIENCING A TRAUMATIC EVENT; BUILDING A SELF-CARE PLAN

Stress or anxiety are normal reactions to a traumatic event. Reactions can range from moderate to overwhelming for individuals directly impacted. Possible reactions one might experience include:

- **Re-experiencing the trauma** (recurrent dreams of the event, flashbacks, and intrusive memories)
- **Feelings of uneasiness in situations that bring back memories of the trauma or event**
- **Avoidance behaviour** (such as persistent avoidance of things associated with the event)
- **Emotional numbing** (feeling "not entirely present", preoccupied, distracted)
- **Reduced interest in others and the outside world** (avoiding others and disengaging from activities that normally bring enjoyment, fatigue)
- **Persistent increased arousal** (constant watchfulness, irritability, jumpiness, being easily startled, outbursts of rage, insomnia)

These reactions are normal and are experienced when individuals are in abnormally distressing situations. While most people recover after acute traumatic events on their own or with the assistance of a mental health professional within weeks of the event, it is important to note that some individuals do not experience these reactions until later. In either scenario, it is important to acknowledge your reactions and seek appropriate support.

#### Self-care techniques

- Prioritize all personal safety and health needs.
- Learn and practice controlled breathing methods (slow, relaxed breathing) to reduce physical symptoms of anxiety, fear, and panic. Avoid breathing too deeply or rapidly as this can cause physical symptoms of panic.
- Get enough sleep.
- Reduce caffeine intake to 300mg or less per day.
- Learn and practice daily relaxation methods to reduce physical symptoms of tension.
- Get regular exercise.
- Identify and challenge exaggerated words and pessimistic thoughts.
- Use evidence-based anxiety websites or self-help books.

## Appendix J: Mental Health Assistance Contact Information

This is a list of contact numbers that can be used by individuals who may need assistance due to mental health concerns, one of two documents provided to all participants to assist in mitigating the potential for posttraumatic injury.

- For emergencies, call 911.
- 24-hour Crisis Line, Sudbury: 705-675-4760
- Warm Line. Mental Health Assistance
  - Northeastern Ontario
  - 6:00am to 12:00am
  - 1-866-856-9276
- ConnexOntario. Addiction, mental health, and problem gambling treatment services.
  - 1-866-531-2600
  - <https://www.connexontario.ca/>
- Telehealth Ontario at 1-866-797-0000