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Resilience pathways and help-seeking preferences for Ontario police services

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ABSTRACT

Despite the availability of mental health services, post-traumatic stress injuries (PTSI) among Canadian police services members continue to be significantly more prevalent than in the general population. The purpose of this study was to identify sources of resilience and help-seeking preferences among Ontario police personnel. We used a path analysis of online survey data to test the direct and indirect effects of mental and physical health, stress, health literacy, and attitudes toward mental health treatment on life satisfaction, community belonging, and resilience, while controlling for social contextual factors. Self-rated mental health, life satisfaction, and community belonging directly predicted resilience. Multiple positive indirect effects on resilience emerged, including from attitudes towards mental health treatment via community belonging, and mental health and community belonging, both via life satisfaction. Life stress had a negative indirect effect on resilience via life satisfaction. This study offers initial evidence of factors that influence resilience among police personnel and suggests that efforts to support resilience in this population may be well served by focusing on enhancing life satisfaction and community belonging.

Key Words Mental health; well-being; community belonging; structural equation modeling.

INTRODUCTION

The prevalence of post-traumatic stress injuries (PTSIs) among Canadian public safety personnel (PSP) continues to be significantly higher (M=44.5%) than in the general population (M=10%) (Carleton et al., 2018a). Occupational stress among PSP has been identified as a growing local and global concern (Kim et al., 2018; Pietrantoni & Prati, 2008). Research has largely focused on the prevalence of PTSI among PSP (Carleton et al., 2018a; Faust & Ven, 2014) and/or examining interventions to alleviate the distress of PTSI (Richards et al., 2021; Regehr & Bober, 2005). There are gaps in understanding the nature of occupational stress within and between different PSP populations (University of Regina, 2016). Specifically, there is limited understanding concerning PSP's preferences for how to access mental health information and services (Haugen et al., 2017) and sources of strength of PSP who remain well-functioning—that is, who maintain performance and productivity—despite similar exposure to traumatic stress (University of Regina, 2016; Janssens, 2021; OPP Final Report, 2021).

Research on the interaction between exposure to traumatic events and resilience in PSP is under-examined (Horswill et al., 2015; Janssens et al., 2021; Oliphant, 2016; Pietrantoni & Prati, 2008). Studies from the field of war trauma indicate that resilience and distress, including post-traumatic stress, often co-exist and can have parallel pathways (Suarez, 2013). A similarity between these two fields of research is the collective experience of persistent exposure to traumatic experiences. Police services members are trained professionals and are uniquely resilient but they are still susceptible to the effects of cumulative traumatic stress (Regehr et al., 2021). Trauma is the emotional response that can result from an individual or a shared occurrence of a stressful event perceived as traumatic. (Regehr & Bober, 2005; Suarez, 2016). In most cases the aftermath of trauma leads to resilience. However, when traumatic stress is part of daily work, other aspects of life may be impacted, which results in increased vulnerability to mental distress such as PTSIs (Mishara & Martin, 2012). Contemporary theories of resilience focus on social ecologies of resilience rather than solely on individual factors (Ungar, 2018). Police forces are part of a collective organizational culture and part of the larger community that they serve, and all components of their social ecology should be included in understanding

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what fosters resilience and prevents PTSI. This study aims to facilitate this exploration among police services to identify pathways that can enhance resilience.

This study focused on PSP in Ontario, where there was concern reported in 2018 regarding suicides among police services members (OPP Final Report, 2021). Concerns about deteriorating mental health were previously reported in the 2012 Ombudsman report on Ontario Provincial Police (OPP) officers (Ombudsman Ontario, 2012). The OPP's internal review on what might be preventing officers from seeking mental health support points to the limited data about the impact of mental health stigma, lack of trust in mental health support, organizational pressures, and recruitment practices impacting the wellness and help-seeking behaviours of police services members who access mental health supports (OPP Final Report, 2021; Carleton et al., 2018a). Existing research indicates that most people, including PSP, do not develop post-traumatic stress disorder (PTSD) following experiences of traumatic stress, but this does not mean that they do not experience suffering and stress (Pietrantoni & Prati, 2008; Regehr & Bober, 2005; Regehr et al., 2021). The framework of PTSI recognizes this and validates the co-occurrence of other experiences of mental distress, such as depression, anxiety, and addictions, as responses to trauma in addition to PTSD. Further consequences of PTSI among PSP include suicide ideation and/or completion (Stanley et al., 2016), which is a current concern of the OPP (OPP Final Report, 2021) and in Canadian PSP overall (Carleton et al., 2018b).

Modelling Contributing Factors to Resilience

In response to these gaps in the examination of resilience and policing, this study focused on the identification of a) contributing factors to the resilience of police members; and b) their preferred practices to access mental health information in a sample of police members in Ontario. A structural equation model (SEM) was used to test a hypothesized model to understand resilience pathways in a sample of police officers. This model is the ideal method of analysis for this data because it allows the use of multiple indicators and allows for the estimation of reciprocal, direct, and indirect/mediated relationships among constructs (Morrison et al., 2017). From a focused review of previous research (Regehr et al., 2021; Richards et al., 2021; Velazquez & Hernandez, 2019), the following latent variables were selected as factors that contribute to resilience: attitudes towards mental health treatment, health literacy, self-rated mental health, self-rated physical health, level of stress, and sense of community belonging. In addition, demographic data was collected as well as nominal preferences for mental health support. The model tested the following hypotheses:

1) More negative attitudes towards mental health treatment and lower health literacy will be associated with lower resilience scores; and
2) Low levels of any of self-rated mental health, physical health, life stress, and sense of community belonging will be associated with lower resilience scores.

Attitudes Towards Mental Health Treatment

Attitudinal barriers in seeking mental health services have been identified as enhancing the risk of PSP developing mental health difficulties and of suicide (Ballenger et al., 2011; Carlan & Nored, 2008; Clement et al., 2014; Conner et al., 2018; Richards et al., 2021). While resilience is not considered the absence of mental health difficulties (Pietrantoni & Prati, 2008; Suarez, 2013), it is not nurtured by the presence of those difficulties (Mishara & Martin, 2012), which can be prevented by early access to treatment and support.

Resilience

Resilience is understood as the negotiating transactions between the individual's abilities and their social and physical ecologies that allow them to use those abilities (Ungar, 2012; 2018). There are inconsistent views of how resilience can be fostered for communities and/or individuals. Often in policing studies, "resilience" has meant the absence of mental health symptoms (McCanlies et al., 2017) or a combination of other individual and social factors such as hardiness, optimism, sense of agency, etc. (Fyhn et al., 2015; Thompson, 2022). This study aims to facilitate an exploration among police services to identify pathways that can enhance their resilience on a collective and individual level.

Health Literacy

Health literacy is defined as the ability to access, understand, and use information to make health decisions. It is well known that low health literacy is associated with poorer health outcomes (Berkman et al., 2011). In Canada, about 60% of adults "lack the capacity to obtain, understand and act upon health information and services" (Canadian Council on Learning, 2008, p. 5). Health literacy also influences mental health outcomes (Arocha & Hoffman-Goetz, 2017) and, theoretically, individual resilience. It is also known that health literacy is an important predictor of attitudes people have towards help-seeking behaviour, even among the highly educated (Cheng et al., 2018; Jung et al., 2017). This study examines the health literacy and help-seeking preferences of members of police services with the aim of identifying patterns that support timely utilization of mental health information and services that could prevent PTSI.

Perceived Wellness

As in other populations, police officers' self-perception of their mental health has been an important and consistent indicator of mental wellness, but there are also additional proactive contributing factors (Regehr et al., 2021; Richards et al., 2021). To obtain a reliable and wide-ranging picture of self-perceived wellness, the following five variables, used to determine the self-perceived wellness and general health in the Community Health Survey in Canada (Statistics Canada, 2018), were selected as indicators of wellness: self-rated physical health, mental health, life stress, life satisfaction, and sense of community belonging.

METHODS

This cross-sectional study used an online survey design and purposeful sampling strategies to recruit current and former members of police services in Ontario. Following a collaborative approach to survey design (Flicker et al., 2010), an advisory committee informed the research team on the suitability of the survey questions and the data collection strategies. The study used structural equation analysis, which allowed for

the estimation of simultaneous reciprocal effects in a multivariable setting. The covariance matrix was analyzed using Mplus and the maximum likelihood method was used to estimate and test the magnitude of such relationships. Model fit was carried out in a two-step process recommended by James and colleagues (1982). The goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), and the root mean square error of approximation (RMSEA) were used to assess the goodness of fit of the model. A model is considered a good fit when GFI and AGFI are higher than 0.90 and the RMSEA is around 0.05 or less (Goffin & MacLennan, 1997; Steiger, 1990)

Participants

Participants were recruited primarily from police services that collaborated with the researchers to promote the survey to their members. Direct outreach was conducted with 35 police services, including the Ontario Chiefs of Police Office, police associations and educational programs. Some police units declined to advertise to their members, while some did not respond to the request. The final sample included representation from more than ten different police services from across Ontario. Participants were invited to complete an online survey between October 2019 and February 2020. For participants' time, a nominal coffee shop gift card was offered via a separate web link to protect confidentiality. Ethics approval was obtained from Wilfrid Laurier University (April 30, 2019).

A total of $N = 241$ police officers completed our survey (see Table I for sample demographics). Five were missing data on all predictors in our proposed model, reducing the analytic sample to $N = 236$.

Measures

Attitudes Towards Mental Health Treatment

Attitudes towards mental health treatment (ATMHT) were measured using a scale developed by Conner et al. (2018) comprising 20 items measured on a 4-point Likert scale of 1 (Strongly disagree) to 4 (Strongly agree). Scores of each item were summed, with higher scores indicating a more positive attitude. The mean in our sample was 59.472 (standard deviation [SD] = 7.078). Cronbach's alpha was calculated for this sample at .838

Resilience

Resilience was measured using the Connor-Davidson Resilience Scale (CD-RISC), a 25-item self-report scale, scored from 0 (Not true at all) to 4 (True nearly all the time). In agreement with a social ecological framework, the CD-RISC defines resilience as "a measure of stress-coping ability that varies with context, age, gender, time, and culture, as well as with different types of adversity" (Connor & Davidson, 2003). Scores for all 25 items are summed to give a maximum total of 100, with a higher score indicating higher resilience. The mean for our sample was 72.83 (SD = 12.36), which is slightly lower than general population samples and slightly higher than PTSD-exposed samples (Connor & Davidson, 2003). Cronbach's alpha was calculated for this sample at .914.

Health Literacy

The 4-item Brief Health Literacy screening tool (Baker et al., 1999) was used to examine health literacy skills. Three items ask about the frequency of difficulties with health-related materials (1 = Always, 5 = Never) and the fourth measures confidence completing medical forms independently (1 = Not at all, 5 = Extremely). The measure has been assessed as reliable and valid in multiple studies (Haun et al., 2012).

Self-Rated Wellness

Self-rated wellness indicators were measured with single items and included general physical health and mental health (1 = Excellent, 5 = Poor), life stress on most days (1 = Not at all stressful, 5 = Extremely stressful), life satisfaction (0 = Very dissatisfied, 10 = Very satisfied) and sense of belonging to one's local community (1 = Very strong, 4 = Very weak). All five items are from the "General Health" section of the Canadian Community Health Survey (Statistics Canada, 2018).

Data Analysis

Using Mplus v8.4, we first tested measurement models for CD–RISC, ATMHT, and health literacy (see Supplemental materials) and then assessed the path analysis. To evaluate overall model fit, we examined the chi–square test, with a significant p–value suggesting the model should be closely examined for potential errors (Ropovik, 2015). We assessed incremental fit (i.e., above a baseline model with uncorrelated variables; Worthington & Whittaker, 2006), with the comparative fit index (CFI) and Tucker Lewis index (TLI). We used the RMSEA with 90% confidence intervals (CIs) and the standardized root mean square residual (SMSR) indices to evaluate how well our a priori model fit our sample (Hooper et al., 2008). While cut–off values for model fit indices are not absolute, we adopted the conventional values of > 0.90 for the CFI and TLI and < 0.08 for RMSEA and SRMR.

Because we collected data with a difficult-to-reach population, we sought to collect the largest sample possible. Post hoc power analyses determined that we would require a minimum sample of 88 to discover a small effect (0.10) at standard power (0.80) and probability ($p < 0.05$) in a model with one latent and seven observed variables, with a minimum sample of 400 suggested for the model structure. Accordingly, we are well powered to detect our desired effect while underpowered for our model structure. To mitigate the lack of power for our model structure, we computed composites of each measure and tested our path analysis without latent variables.

RESULTS

Path Analysis

As seen in Table II, our data violated normality assumptions, so we tested the model using maximum likelihood with robust standard errors (MLR) (Muthén & Muthén, 2017). Considering nonparametric correlation coefficients (see Table III), resilience, life satisfaction, and belonging correlated strongly with almost all variables. Health literacy did not correlate with markers of health and stress, and ATMHT correlated only with health literacy and belonging.

Our proposed model (see Figure 1) fit the data well; $x^2(3) = 4.31$, $p = .230$, CFI = .996, TLI = .971, RMSEA = .04 [.00, .13], SRMR = .03. The model accounted for 56.8% of the variance in resilience, 47.6% of the variance in life satisfaction, and 16.8% of the variance in community belonging. Controlling for the effects of marital status, participant sex, age, parental status,

TABLE I Descriptive statistics of sample (n = 241)

Participant–Level		
	n	(%)
Gender		
Woman	87	36.1
Man	147	61.0
Missing	7	2.9
Education		
<High school	2	0.8
High school/equiv.	9	3.7
Diploma	62	25.7
Some university	45	18.7
Undergraduate degree	101	41.9
Graduate degree	17	7.1
Birthplace		
Ontario	203	84.2
Outside Ontario	33	13.7
Missing	5	2.1
Have children		
Yes	181	75.1
No	55	22.8
Missing	5	2.1
Have pets		
Yes	164	68.0
No	72	29.9
Missing	5	2.1
Person of colour		
Yes	12	5.0
No	224	92.9
Missing	5	2.1
Indigenous		
Yes	10	4.1
No	225	93.4
Missing	6	2.5
Have disability		
Yes	17	7.1
No	219	90.9
Missing	5	2.1
Mother tongue		
English	225	93.4
French	3	1.2
Other	8	3.3
Missing	5	2.1
Marital Status		
Married	175	72.6
Common law	23	9.5
Unpartnered	38	15.7
Missing	5	2.1
	Mdn	(*SD*)
Age	44	9.8

Institution–Level		
	n	(%)
Work Location		
Town/First Nation	11	4.6
Small city	29	12.0
Medium city	81	33.6
Large city	120	49.8
Main assignment		
Frontline	109	45.2
Admin/support	54	22.4
Investigative	52	21.6
Other	26	10.8
Member status		
Active	213	88.4
Former member	27	11.2
Missing	1	0.4
Member type		
Sworn member	193	80.1
Civilian member	45	18.7
Member tenure		
<4 years	23	9.5
4–9 years	29	12.0
10–15 years	48	19.9
>15 years	141	58.5
PS support services		
Yes	232	96.3
No	2	0.8
Unsure	7	2.9

PS Support Services = participant's police service offers mental health support services.

TABLE II Descriptive data and reliabilities of model variables

	a	N	Min – Max	M	Med	SD	Skewness	Kurtosis
Resilience	.90	236	0 – 5	2.91	2.91	0.48	–4.16	4.24
Life satisfaction	—	229	0 – 10	7.31	8.00	1.77	–7.74	8.40
Belonging	—	236	–1.5 – 1.5	0.13	0.50	0.77	–1.51	–0.85
ATMHT	.70	236	–1.5 – 1.5	0.46	0.42	0.34	–0.38	1.55
Physical health	—	236	1 – 5	3.50	4.00	0.86	–1.76	0.49
Mental health	—	236	1 – 5	3.28	3.00	0.96	–2.18	–1.11
Stress	—	236	0 – 4	2.31	2.00	0.79	–2.22	–0.09
Health literacy	.80	236	1 – 5	4.62	4.75	0.59	–15.94	26.66

ATMHT = attitudes toward mental health treatment; SD = standard deviation.

TABLE III Parametric and non-parametric bivariate correlations among model variables

	1	2	3	4	5	6	7	8
1. Resilience	—	.61	.47	.07	.27	.62	–.32	.17
2. Life satisfaction	.68	—	.38	–.01	.32	.63	–.43	.15
3. Belonging	**.46**	**.38**	—	.18	.13	.40	–.17	.14
4. ATMHT	.10	.02	**.15**	—	.03	.03	–.02	.19
5. Physical health	**.32**	**.35**	**.14**	.01	—	.34	–.19	.12
6. Mental health	**.65**	**.65**	**.38**	.02	**.35**	—	–.41	.12
7. Stress	**–.33**	**–.42**	**–.15**	–.05	**–.24**	**–.43**	—	–.06
8. Health literacy	**.20**	**.19**	.11	.13	.10	.10	–.10	—

ATMHT = attitudes toward mental health treatment. Bolded values are significant at $p < .05$. Coefficients below the diagonal are parametric (Pearson's correlation) and above the diagonal are non-parametric (Spearman's rho).

pet ownership, member type, work location, and main work assignment on resilience ($.079 < p < .868$) did not appreciably change the results, so we report the results without them.

As seen in Figure 2 and Table IV, police service members who reported better mental health, higher life satisfaction, and a greater sense of community belonging tended to report higher resilience. Having better physical and mental health, experiencing less stress, and having a stronger sense of belonging to their local community were associated with reporting higher life satisfaction. Finally, reporting more positive attitudes towards mental health treatment and having better mental health were associated with having a stronger sense of community belonging. Health literacy was only marginally associated with life satisfaction, p = .052. We ran

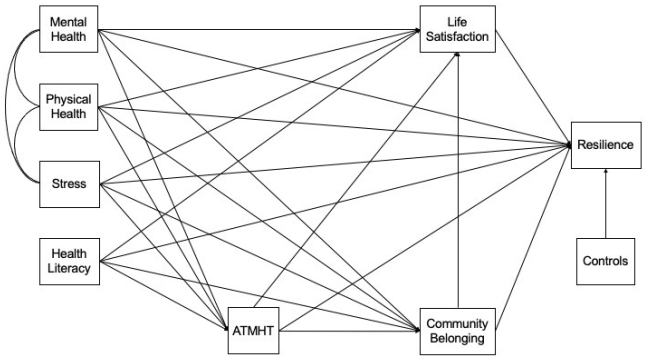

FIGURE 1 Proposed model predicting resilience among Ontario police officers. ATMHT = Attitudes toward mental health treatment. Controls is comprised of personal demographics (e.g., age, marital status) and police service characteristics (e.g., member type, work location).

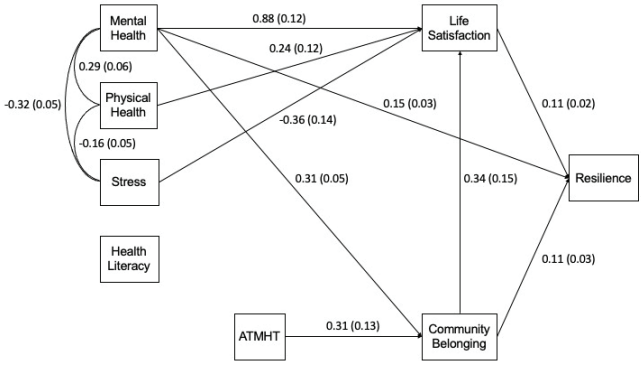

FIGURE 2 Final model results predicting resilience among Ontario police officers. ATMHT = attitudes toward mental health treatment. We present only significant ($p < .05$) unstandardized path coefficients and *SE*s. Standardized coefficients and SEs can be found in Table IV.

TABLE IV Direct and indirect effect path coefficients for model predicting resilience (n = 236)

Variables	Standardized [a] Coefficients (*SE*)	[95% CI]
	Direct Effects	
Resilience		
Attitudes Toward Mental Health Treatment	0.06 (0.04)	[–0.02, 0.13]
Physical health	0.05 (0.05)	[–0.04, 0.14]
Mental health	0.31 (0.06) ***	[0.19, 0.43]
Life satisfaction	0.39 (0.07) ***	[0.25, 0.53]
Stress	0.02 (0.05)	[–0.09, 0.12]
Community belonging	0.18 (0.05) ***	[0.09, 0.27]
Health literacy	0.06 (0.05)	[–0.03, 0.15]
Life satisfaction		
Attitudes Toward Mental Health Treatment	–0.03 (0.05)	[–0.13, 0.07]
Physical health	0.12 (0.06) *	[0.01, 0.22]
Mental health	0.48 (0.06) ***	[0.36, 0.59]
Stress	–0.16 (0.06) **	[–0.27, –0.04]
Community belonging	0.15 (0.07) *	[0.02, 0.28]
Health literacy	0.11 (0.06)	[0.003, 0.22]
Community belonging		
Attitudes Toward Mental Health Treatment	0.14 (0.06) *	[0.03, 0.25]
Physical health	0.003 (0.07)	[–0.12, 0.13]
Mental health	0.39 (0.06) ***	[0.27, 0.51]
Stress	0.03 (0.06)	[–0.10, 0.15]
Health literacy	0.06 (0.06)	[–0.07, 0.18]
Attitudes Toward Mental Health Treatment		
Physical health	–0.01 (0.07)	[–0.16, 0.13]
Mental health	–0.01 (0.07)	[–0.15, 0.14]
Stress	–0.05 (0.07)	[–0.18, 0.09]
Health literacy	0.12 (0.08)	[–0.03, 0.28]
	Indirect Effects	
	Unstandardized Coefficients (*SE*)	**[95% CI]**
Resilience		
ATMHT > CB > RES	0.04 (0.02) *	[0.00, 0.07]
MH > LS > RES	0.09 (0.02) ***	[0.05, 0.14]
MH > CB > RES	0.04 (0.01) **	[0.01, 0.06]
MH > CB > LS > RES	0.01 (0.01) *	[0.001, 0.02]
STR > LS > RES	–0.04 (0.02) *	[–0.07, –0.01]
CB > LS > RES	0.04 (0.02) *	[0.01, 0.07]
Life satisfaction		
MH > CB > LS	0.11 (0.05) *	[0.01, 0.21]

ATMHT = attitudes toward mental health treatment; CI =confidence interval; CB = sense of community belonging; RES = resilience; MH = mental health; LS = life satisfaction; STR = stress.

The model was estimated using MLR, so no bootstrap calculations were performed. Variable names for indirect effects are abbreviated for ease of display and arrows depict the path of each indirect effect.

[a] Standardized coefficients represent the change in *y SD*s when *x* changes 1 *SD*.

*p < .05. **p < .01. ***p < .001.

a subsequent model excluding health literacy's direct effect on life satisfaction, but it did not significantly improve model fit, TRd = 3.43 < = 3.84 (Jang & Muthén, 2011; Mplus, n.d.), so we retained health literacy in our model.

Several indirect effects predicting resilience and life satisfaction also emerged. More positive attitudes toward mental health treatment predicted a stronger sense of community belonging, which in turn predicted higher resilience. Mental health affected resilience indirectly through life satisfaction and community belonging, and serially through community belonging and then life satisfaction. Better mental health predicted higher life satisfaction and a stronger sense of community belonging, both of which predicted higher resilience. In the serial mediation path, better mental health predicted a stronger sense of community belonging, which predicted more life satisfaction and, in turn, higher resilience. Higher levels of stress predicted less life satisfaction, while a stronger sense of community belonging predicted more; in turn, the two predicted lower and higher resilience, respectively. Finally, better mental health predicted a stronger sense of community belonging, which in turn predicted higher life satisfaction.

While not significantly associated with resilience in this model, help-seeking preferences were also ranked by participants. By far the top two preferred methods were having help from a trusted colleague (n = 142; 59%) and searching the internet (n = 102; 42%). Peer support groups were selected by far fewer participants (n = 44; 18%), indicating a preference for informal relationships with peers rather than formalized peer support groups.

DISCUSSION

This study provides a specific view into the complexities of resilience among police members in an Ontario sample. A predictive model of resilience was built with many factors, some of which were linked to each other and multi-directional. Life satisfaction and sense of community belonging directly predict resilience.

The triple predictive value of self-rated mental health in resilience outcomes is a revealing finding of this study. Self-appraised mental health influenced resilience directly and also indirectly through its association with life satisfaction and sense of community belonging and this action as triple predictor deserves further exploration. Most previous research has approached mental health in policing with a focus on a list of symptoms or difficulties (Carleton et al., 2018a; 2018b; Wagner et al., 2019) but rarely as a self-rated appraisal as in this study. As discussed by Newell and colleagues (2021), perhaps this questioning approach has opened the door to the input from police officers as "problem solvers" of their own mental health difficulties rather than as "problem holders." As these findings pointed out, the problem solving of participant officers is likely connected to how sense of community belonging and overall life satisfaction is experienced. This is consistent with the study's conceptual framework of resilience as determined by social ecologies impacting individual abilities to survive well (Ungar, 2018). The cross-sectional nature of the study precludes any temporal directionality of these associations, but the triple prediction shows clearly how mental health, resilience, life satisfaction, and sense of community belonging impact each

other, and how resilience building programming can be based on these interactions.

To address community belonging and life satisfaction, there is a need for a more holistic approach to promoting resilience in an ongoing way and ideally before traumatic exposure. Sense of community belonging may include feelings of belonging within one's workplace or within one's community. When police services look at building relationships with the community, the focus is usually on building trust with the "service users." Prior limited evidence indicates that police may have a good relationship with the community in which they live, but that they often live in neighbourhoods outside the communities they serve, with which their relationship may not be as good (Allen & Parker, 2013; Miles-Johnson et al., 2021). Our study supports an approach of building relationships with the community not because the community will be the service users, but because the police members also become community members by virtue of working within that community, regardless of where they reside. The stronger their sense of belonging to the community, the better equipped they will be to handle the stressors of the job. Further, and perhaps paradoxically, if police members felt a stronger sense of belonging to the communities they serve, they would be more invested in making those communities healthier and safer, thus reducing the need for them to even be resilient in the first place. Lastly, it should be considered whether police members ought to be residents of the communities they serve to foster a sense of belonging to the community. While the implications of such an approach are not fully clear, Falcone et al. (2002) point out that police who serve and live in small cities (i.e., <250,000 residents) report a stronger sense of belonging to the community and, because of the relationships they build within their community, are more effective in solving crime than their urban counterparts (FBI, 2019).

Peer support and other mental health programming have been considered primarily reactive ways of dealing with effects of high traumatic exposure within policing and first responders overall (Allen & Parker, 2013). In the final report of the OPP's independent review panel (2021), several of the recommendations are explicitly around strengthening peer support and mental health programming, although it also highlighted the need for holistic interventions, work culture change, and new options in mental health services. Although the study highlights the relative importance of peer support, our study finds that participants preferred *informal* peer supports rather than formalized peer support programs. This is consistent with our findings of the importance of social capital. Consistent with our overall findings is also the reported need of considering supports in the long term for mental health distress arising in the aftermath of exposure to traumatic events (Richards et al., 2021; Regehr et al., 2021). The role of stigma in attitudes towards mental health treatment and its potential solutions has been examined widely (Drew & Martin, 2021; Richards et al., 2021; Rinkoff, 2022). Indeed, the direct association of ATMHT with sense of community belonging and indirect association with resilience in this study appears to suggest and confirm that mental health stigma can affect ATMHT and therefore overall resilience.

Similarly, life satisfaction includes factors within the direct control of the policing bodies as well as indirect factors. Policing employers have control over aspects related to life satisfaction, especially as it relates to conditions of employment such as job satisfaction and work–life balance (Alden et al., 2020). Police services should view these work conditions as building blocks for a mentally well workforce. As illustrated by Viegas and Henriques (2021), job stress in policing appears to be reinforced by a low level of job satisfaction but also separately by work–family conflict. Holistic interventions to lessen job stressors will ultimately impact overall life satisfaction and positive mental health.

Limitations and Future Research

Our study makes several useful contributions to the discourse on resilience and mental wellness in policing. However, as it used purposive convenience sampling, the sample is not representative, and further research should be done to establish similar results across a larger sample. Another important limitation is that this research was designed to identify the factors predicting resilience and the strength of these associations. Further research and evaluation is needed to specifically determine how to practically address and improve each of those factors.

Additionally, this research was completed prior to the declaration of COVID-19 as a pandemic, the murder of George Floyd by a Minneapolis police officer in the United States, and the subsequent social uprising around racial justice and police brutality. Survey responses were collected prior to the release of recent reports from Indigenous and racialized communities about police violence in Canada (Dixon & Dundes, 2020; Howard et al., 2022). The results of this survey, had they been completed a handful of months later, may have been different. A repeat of a similar survey now, or post-pandemic, would be useful to reassess predictors of resilience and/or assess how the above events may have impacted resilience. Additionally, it would be interesting to reassess sense of community belonging in light of the national and international conversations about the role of police/policing in communities.

While sense of community belonging emerged as an important predictor of resilience, this study took an individual approach to this concept. We did not ask in our questionnaire whether the individual lived in the community in which they worked, and we did not clarify whether their "belonging" should be in relationship to their resident community or service community. When Carpiano and Hystad (2011) analyzed what aspects the General Social Survey community belonging measure was capturing, they found it was linked to social capital, such as having relatives, friends, or relationships with others in one's neighbourhood. This adds some complexity to our findings, especially when considering how one's (geographic) work neighbourhood may not be the same as one's residential neighbourhood, or whether it would hold true when considering one's workplace "community" in a broader sense. Fostering a sense of belonging would still be important at an individual level—that is, social capital or social support is often supportive of resilience. Further research is needed to determine the impact of sense of belonging across these different types of communities (i.e., home, work location, and workplace more expansively) and any differences in resilience depending on whether individuals live and work in the same community.

Another area that requires further investigation is the lack of effect of gender on resilience or ATMHT. Previous

research (Chitra & Karunanidhi, 2021) indicated that women in policing tended to be more likely than men to seek help, and therefore the expectation was that gender would have a significant effect on the outcome variables. In this case, we saw no significant effect of gender. This could be because of self-selection bias, in that the culture of policing is still heavily male-dominated and steeped in traditional masculinity. The women who choose to become police members may have traits that "fit in" more seamlessly in such an environment, rendering the attitudes, beliefs, and behaviours about mental health and resilience more homogenous than would typically be expected (Shelley et al., 2011). Yet, the systemic variables that affect women in the police forces differentially also need to be considered carefully (Menard & Arter, 2014), as well as male patterns of help seeking (Hoy, 2012).

Further research should be done on existing peer support programs, as recommended by the final report of the OPP's independent review panel (2021). Our results highlight the need for more in-depth evaluation of current peer support programs, with an eye to ensuring that resources are spent on supports that are desired by members. It may be relatively easier and more cost-effective to foster better social connections among peers than to make members aware of, trust, and use formal organizational programming, which may be of variable quality and efficacy across services. Further, reimagining such programs aligns with the OPP report's recommendation to explore options beyond existing peer support models.

CONCLUSION

This study offers initial evidence of the pathways that influence resilience among members of police services. In particular, better understanding of contributors to life satisfaction and sense of community belonging suggests avenues to supporting resilience in this population. Also clear in the findings is the importance of understanding how self-appraisal of mental health can be supported. Further research is required in order to understand what aspects of work environment and community and individual factors are important in the process of developing a positive self-appraisal of mental health that influences overall resilience. As previous research indicated (Chitra & Karunanidhi, 2021; Thompson, 2022), resilience-focused training in policing mental wellness programming is effective and can support members of police services as well as the communities they serve. Practical changes in the delivery of mental health services will benefit from service users' direct input. The OPP's (2021) recent recommendations include constant involvement of members and their families in supporting wellness and new options for mental health services.

This project views police services as a community that not only shares a workplace but also a social and professional identity (Regehr & Bober, 2005). The positive outcomes of the Montreal police program on suicide prevention, offered in 2000 and 2006, which reduced the suicide rate among police members in Montreal by 78%, were partly explained by the involvement of all levels of the police workforce in that location, which made it possible to engage in persistent efforts and influence the workplace culture of the entire milieu (Mishara & Martin, 2012). The equitable leadership of all levels of members of local police services and community members will be key elements for ensuring both individual and collective resilience. Future studies may assess how negatively altered attitudes and beliefs about police may impact officers' resilience, mental health, and willingness to seek help. As calls to reimagine policing in Canada grow (Bear, 2022; Stelkia, 2020; Palmater, 2016; Ruddell & Kiedrowski, 2020; Wortley, 2021), organizational changes in policing can be informed with this study as it reveals the importance of the intersection of individual, community, and occupational factors as well as supports prioritizing relationship building—among peers and with the community.

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CONFLICT OF INTEREST DISCLOSURES

The authors declare that there are no conflicts of interest.

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SUPPLEMENTAL MATERIAL

Supplemental material linked to the online version of the paper at journacswb.ca:

- Detailed data analysis and results

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