

# **Volunteer Motivation and Retention in British Columbia Search and Rescue Organizations**

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## **Introduction**

As an executive for a non-SAR volunteer organization, I have had to handle the challenges created by turnover at the association. For an organization with 125 members, training 25-30 new members each year is the most significant challenge. Maintaining standards, training trainers, and finding volunteers willing to coordinate training is a constant task. In this organization, I see new members leave for many reasons. Some leave for work conflict issues, family issues, as well as organizational and personal reasons. My experience with this organization, as well as my experience with Arrowsmith Search and Rescue provided me with personal knowledge for this research project. My background as an organizational academic motivated me to research the issue as a way to contribute to Search and Rescue organizations and help them find solutions to reduce turnover and increase volunteer retention.

In this report, I provide and explain the results of a motivation survey data collected in 2016. I first provide a short overview of the conceptual foundation used to design the survey, followed by a description of each measure used in the survey. I explain the methods used to collect and analyze the data and then present the results. I then provide a structural model that explains the relationships among the measures. I finish with a discussion of ideas on how SAR groups can use the results and model to improve SAR volunteer motivation and retention.

## **Conceptual Foundation for Survey**

There is a wide range of theories about motivation and an even larger number of concepts that can be used to evaluate reasons why people join a search and rescue organization and stick with the SAR team they join. In designing this survey about SAR volunteer motivation, I chose a theory that has strong support from existing research, including research on volunteer motivation. As a starting point, I chose a simple, yet powerful conceptual foundation. The Theory of Reasoned Action (TRA) is most commonly used to explain connections between attitudes and behavior (Fishbein and Ajzen, 2011). This theory contains the idea that our behaviour is influenced by our attitudes toward the behaviour. Simply put, a SAR volunteer is positively motivated to join SAR organizations and remain with the organization when they have a positive attitude toward SAR activities. TRA starts with the notion that beliefs toward a behaviour are shaped by observations, inferences, and external influences. These beliefs are influenced by internal personal factors and personal biases as well as important external sources. Attitudes are generally formed based on only a few significant beliefs and tend to be internally consistent. A general attitude is the weighted sum of all beliefs as a person evaluates their beliefs and forms a corresponding attitude. These

beliefs may be heavily influenced by social context and tend to be relatively permanent (Fishbein and Ajzen, 2011).

The next step, then, is selecting concepts that measure those few significant beliefs that shape attitudes toward the behaviour that is the focus of this research – search and rescue volunteer motivation. Fortunately, there is an extensive literature of articles that examine internal and external factors that influence and shape beliefs about volunteer motivation and subsequent behaviour. For this research project, I selected established measures that have substantial support within the relevant research literature. These measures include four individual-level factors – the Volunteer Functional Motivation Inventory; Engagement; Attitude toward SAR activities; and Intent to Quit. I also included two relevant organizational factors that also influence beliefs and attitudes – Perceived Organizational Support and Leadership Autonomy. I also included seven control measures (four individual level and three organizational level).

**Volunteer Functional Motivation Inventory.** Clary and his colleagues (1998) claim that people volunteer for several reasons and these reasons are based on psychological mechanisms that motivate beliefs and behaviors. Their research identified six functional reasons for volunteering, creating the Volunteer Functional Motivation Inventory (VFMI) measure. People volunteer because of their (1) *Values* as volunteering allows people to demonstrate concern for others. People also volunteer to increase their (2) *Understanding* of the world. Volunteering provides them with new learning experiences and the chance to exercise their knowledge, skills, and abilities. Volunteers often join organizations for the (3) *Social* benefits as volunteering offers opportunities to be with one's friends or to engage in an activity viewed favorably by others important to the volunteer. Some volunteers join to improve their (4) *Career* or increase their career options. Volunteering provides a mechanism for (5) *Ego Enhancement* as it is a method for maintaining or enhancing positive emotions. People volunteer when it feels good to engage in the activity. Volunteering also provides a method for (6) *Ego Protection* as it may help someone avoid negative feelings, reduce guilt, or address one's own personal problems.

**Engagement.** This measure evaluates the degree to which volunteers have a sense of energy and connection with their volunteer efforts. A person with a high level of engagement has a positive state of mind and feels that their effort is fulfilling. An engaged volunteer has a sense of vigour, dedication, and absorption with their activities. This is a generalized persistent and pervasive emotional-cognitive state of mind (Schaufeli, Bakker, & Salanova, 2006). The Engagement measure used in this research project assessed three elements of Engagement. First, *Vigor* is characterized by high levels of energy resilience and persistence even in the face of difficulties. Second, *Dedication* is when a volunteer is strongly involved in one's work and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge. Third, *Absorption* is when a volunteer fully concentrates on the task and is happily and deeply involved to the extent that time passes quickly without notice.

**General Attitude toward SAR activities.** This measure evaluates a SAR volunteer's generalized emotional-cognitive perception toward SAR activities. It follows from the basic premise of the Theory of Reasoned Action that behaviour is shaped by a person's attitude toward it (Fishbein and Ajzen, 2011). The

measure used focused on attitudes that emerge from social situations and are shaped by norms (Gill, Crosby, & Taylor, 1986).

**Intent to Quit.** This is the primary dependent variable for this research. The key question I want to address is the connection between motivation and retention. The Theory of Reason Action assumes that behaviours follow intentions and a substantial amount of research supports that assumption. As this research project design is not a long-term project that follows SAR volunteers over a long period of time, I am unable to directly measure retention. In organizational research, the standard measure for retention is to ask people whether they intend to quit (Michaels and Spector, 1982).

**Perceived Organizational Support.** This measure is volunteer's general perception of the extent to which the SAR group values their contributions and cares about their well-being (Eisenberger et al., 2002). This six-item measure is a powerful indicator of the health of an organization's climate a culture. Although it is an individual's perception of how they are valued by the organization, collectively it is an indication of how volunteers are valued, in general. Perceived organizational support is strongly influenced by the organization's managers. Managers who show consideration toward volunteers, provide support, and generally treat volunteers respectfully and fairly create a positive relationship quality (Kurtessis et al., 2015). A positive relationship among volunteers and managers is strongly associated with higher retention.

**Leadership Autonomy.** This measure evaluates the degree to which SAR leaders show that they understand and acknowledge volunteer viewpoints. Volunteers who feel that they can make relevant choices, that their abilities are recognized, and personal initiatives encouraged report higher levels of leadership autonomy (Oostlander, et al. 2014). It evaluates the interpersonal relationship between a volunteer and the SAR managers. The measure was included as it is a strong predictor for Perceived Organizational Support.

**Control Variables.** These were included to address alternative possible reasons why a SAR volunteer might quit their SAR group. They are often referred to as the "Yea, but" variables. When evaluating research, reviewers often state – '*yea, but did you consider...*'. For this research project, I collected four individual-level controls - Age, Gender, SAR Experience and SAR Operations. The number of years with a SAR group is *SAR Experience*. The number times a volunteer went out on a call-outs in 2015 is *SAR Operations*. I also collected three SAR group organizational-level controls. *Group Call-outs* is the number of call-outs for a SAR member's team in 2015. *Subject Not Found* is the number of times that a SAR member's team was involved in a task where the subject was not found. *Subject Death* is the number of times that a SAR member's team was involved in a task where the subject was found deceased. These three variables were collected from the EMBC Incident Summaries (data collection provided by Michael Coyle).

**Data and Methods.** Except for the three control variables from the EMBC Incident Summaries, I collected most of the data using an on-line survey. This survey was collected after I completed the required protocol for research ethics at Vancouver Island University. I collected data from mid-February until the end of May. BCSARA sent out a few requests to SAR Board members asking them to send out the survey

participation request to their members. From these requests, I received 514 responses to the survey. I then evaluated the survey responses to check for duplicate responses, data integrity, and completeness. I also used standard statistical methods to evaluate the validity and reliability of the measures included in the survey and all measures reported satisfied these tests. My analyses and the results presented below come from the unique 427 surveys that were fully completed.

Although the average values for each variable are reported in Table 1 below, they are of limited value in helping us understand what motivates SAR volunteers and what increases retention. This is determined by examining the relationship among the variables. To analyze the relationship among the variables, I use regression analysis and structural equation modeling to create a model of the overall relationships among the variables.

**Results.** The scores in Table 1 show the results for the survey where 1 = strongly disagree and 5 = strongly agree. In general, the higher the number, the more positive the result, although the Intent to Quit scale has an opposite interpretation. What the average values do tell us is that, in general, the survey participants are reporting a positive experience with their SAR groups. A score of 4.16 for Perceived Organizational Support is a high score and is indicative of a generally positive and healthy volunteer climate for volunteers in BC SAR groups. The Intent to Quit average of 1.63 suggests that most survey participants do not intend to quit their group any time soon.

Table 1: Overall averages

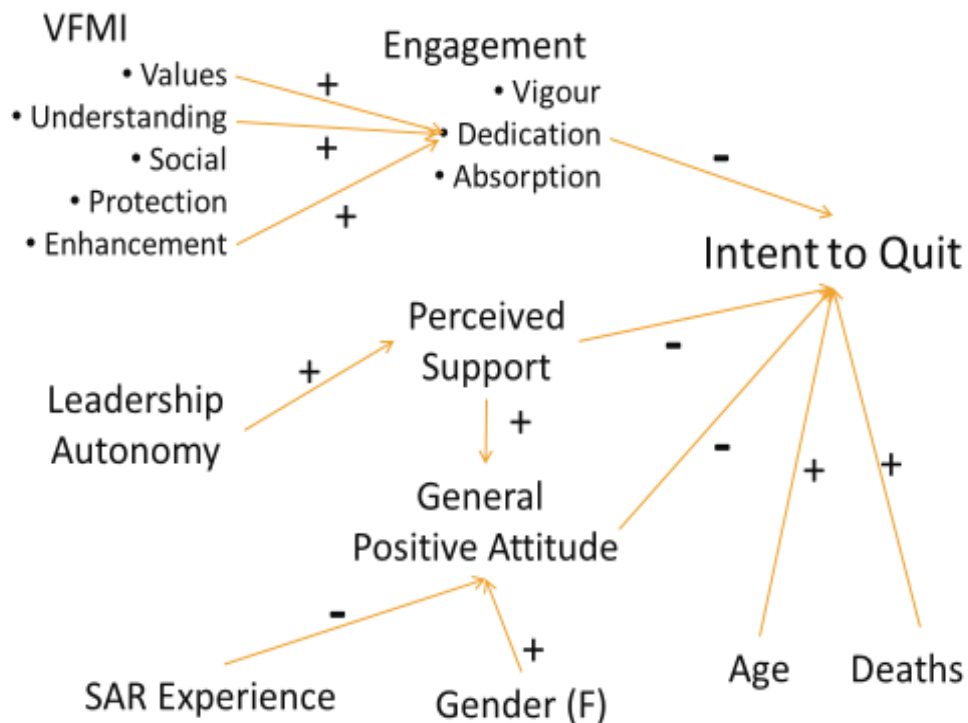
<b>Survey Measures</b>	<b>Average</b>
VFMI-Value	4.4
VFMI-Understanding	4.2
VFMI-Social	3.2
VFMI-Career	2.9
VFMI-Ego Enhancement	3.9
VFMI-Ego Protection	3.3
Engagement - Vigour	3.8
Engagement - Dedication	4.4
Engagement – Absorption	3.7
General Attitude toward SAR	4.2
Intent to Quit	1.6
Perceived Organizational Support	4.2
Leadership Autonomy	3.9
<b>Control Variables</b>	
Age (years)	43.9
Gender	74% M/26% F
SAR Experience (Years)	7.94
SAR Operations (2015)	11.25
Group Call-Outs (2015)	28.7
Subject Not Found (2015)	2.6
Subject Deaths (2015)	2.7

For the Volunteer Functional Motivation Inventory (VFMI), the results show that SAR volunteers mostly join SAR groups because of their values (a desire to help others) as well as a desire to increase their knowledge and skills. The six functions in the VFMI are not exclusive, however, as a person may join for any combination of the ‘functions’ that SAR volunteering provides. The lowest result in the VFMI was “Career”. As this measure was low and I did not find any significant relationships to the measure, I dropped it from the regression and structural equation analyses.

Although these values are interesting and provide some indication about motivation in BC SAR volunteers, understanding the relationships among the variables provide a better overall understanding. As human behaviour is complex, the relationships among the measures is also complex, with few direct predictors of the last measure in the model, Intent to Quit. For example, my analyses do not show any direct relationships between the VFMI measures and Intent to Quit. This means that the VFMI does not directly predict SAR member retention. The reasons why people join and remain with a SAR group are important but these measures are not directly associated with predicting retention. They are, however, indirectly associated with Intent to Quit and another variable, Engagement, mediates the relationship.

The full model, shown below predicts 66% of the variation found in the data. For social science, this is a fairly strong model. It means that a relatively few measures can predict approximately 2/3 of the reasons why a SAR Volunteer stays with their group. To read the model, follow the arrows and look at the “+” or “-” beside each arrow. Each of the arrows shown indicate a statistically significant result. The absence of an arrow means that I did not find a significant result between the variables in the model. I do

## Motivation → Retention: Full Model



not include any variable that was not significantly associated with any other variable. These variables were included in the analysis but not shown in the model (SAR Operations, Subject Not Found, SAR Call-Outs). For SAR Operations and SAR Call-Outs, the lack of significant relationships to other variables suggests that SAR volunteers are not more likely to quit because they are too busy or having to go out too frequently. Some SAR Volunteers may quit because they feel they are too busy with SAR call-outs but, overall, this is not a significant reason according to the data I collected.

I did find significant relationships for four of the control variables – SAR volunteer age and Subject Deaths. As the age of the SAR volunteer increases, the more likely they are to quit within a few months. The variable “Deaths” is a SAR Group-level measure. The positive association between Deaths and Intent to Quit means that the more frequently a group is involved in a call-out, the likelihood that a SAR Volunteer will quit increases, regardless of whether or not the SAR volunteer was directly involved in that a task that involved a subject death. This is a small (2.5% of the variation) but significant result that points to the importance of the CISM team as these types of searches appear to have broad effects among members of the entire SAR group.

The other two control variables relationships were the association between General Attitude toward SAR activities and SAR Experience as well as Gender. In general, women who participated in the survey reported a higher general attitude, compared to men. Additionally, the more years that a SAR volunteer as belonged to their SAR group, they report a lower general positive attitude toward SAR activities. This does not mean someone with more SAR Experience has a negative attitude toward SAR, only that they report lower levels. However, the path from SAR Experience through Attitude to Intent to Quit may indicate burn-out for volunteers with more years of experience. As I did not include burn-out in my survey, this is speculative and determining it would require additional research. There may be other reasons for the lower general attitude for volunteers with more years of experience in SAR.

Following through the model path, the negative relationship between Attitude and Intent to Quit provides support for the conceptual basis of this research. Going back to the Theory of Reasoned Action, beliefs shape attitudes which influence behaviour. In this model, the behaviour is the Intent to Quit. The more positive the general attitude to SAR activities, the lower the Intent to Quit. So, the model provides a result that is consistent with the theory. That is a sign that the model is internally consistent and valid.

Perceived Organizational Support has a dual effect in the model. First, as expected, increased levels of perceived support decrease the intent to quit. Second, it also has a positive connection to general attitude toward SAR activities. These two relationships demonstrate the importance of treating SAR volunteers fairly and consideration is given to their ideas and contributions. Creating a positive volunteering climate within the organization among the group members will also increase perceptions of support.

As expected, Leadership Autonomy was positively related to Perceived Organizational Support. This shows that SAR organizations which provide appropriate options for their members, help them increase, improve, use, and recognize their abilities, and support personal initiatives will feel the leadership of the organization is providing the volunteer with control over their own efforts and

contribution. For example, if SAR teams encourage higher levels of training in a specific skill, it is important that those skills are used when needed. If a group has a highly-trained tracker but does not use tracking in task call-outs or in training, the high-level tracker will not feel their abilities are being appropriately used and are more likely to quit.

As I noted earlier, I did not find a direct relationship between the VFMI measures and retention. I did, however, find a mediated relationship. Three of the VFMI measures (values, understanding, and ego-enhancement) are positively related only to Engagement-Dedication, which is negatively related to Intent to Quit. This suggests that people who volunteer for SAR because they hold a high value on demonstrating a concern for others are more dedicated to SAR activities and this higher level of dedication decreases the likelihood of quitting soon. The same holds true for SAR volunteers who join to increase their knowledge and skills. Ego-Enhancement, however, may have a slightly different path. People may join a SAR group because of values or to increase their skills but they may discover that helping a group find a lost person makes them feel good about themselves. Ego-Enhancement may be more of a reason a volunteer stays with a SAR group rather than a reason to join a SAR group. Determining this hypothesis, however, requires additional research with a different research design. In the model, neither social reasons nor ego protection were significantly related to any type of engagement. Additionally, only Engagement-Dedication was significantly (and negatively) associated with Intent to Quit. Neither Vigour nor Absorption were significantly related to retention.

**Improving Retention.** Organizational researchers have several methods for evaluating the value of a research project. The most blunt method is the “So What?” assessment – why do the results matter? Why are they important? I hope you found the results I discussed above interesting and thought-provoking but what can groups do with these results?

One aspect of my research design is the choice to mostly measure constructs that are related to the organization and the SAR volunteer’s experience with the organization. Prior research on volunteers shows that more than 80% of the factors that predict retention are related to a volunteer’s experiences or the design of the organization and not factors related directly to the volunteer (Tang, Morrow-Howell, & Choi, 2010). This means that SAR groups have the ability to increase retention by making changes within their organization.

First, take steps to make sure SAR volunteers feel their contributions to the group are valued and recognized. This would increase perceived support, leadership autonomy, general attitude toward SAR activities. This may seem simple or obvious but it is possible a bit more complex as the relationships among the variables in my model are more complex. The model I presented appears to be linear, starting with VFMI, connecting to Engagement, bringing in perceived support and general attitude, ending with intent to quit. SAR volunteers are not linear in how they think and behave. People change their perceptions, sometimes gradually, sometimes due to a dramatic event. There are feedback loops among the variables in the model that are not shown in the model I presented. These are not shown because establishing these relationships requires longer-term research that follows the experiences of SAR volunteers over time.

For example, if a person joined a SAR team because of their values, that assessment doesn't halt once they've joined. The volunteer will occasionally re-evaluate their contribution to the SAR group to determine whether their values match their activities in the group. If a volunteer joined because they want to contribute to the community or because they are concerned for others, the group needs to help them make a connection between their activities and their values.

SAR is perhaps a unique type of volunteering. In most volunteer activities, there is a fairly direct and clear connection between the volunteer's actions and the outcome. For SAR tasks, however, the connection is often indirect or more tenuous. When out searching for a lost person, only one team is going to be the first to find the person. Many teams, out on various assigned tasks, may never see the subject of the search. While out on the search, we hear a sudden commotion on the radio, all teams are ordered to hold position, and then told to return to base. SAR members may feel that they were sent out on a low probability area. If a person feels that they are constantly sent on low probability search area, that could decrease their perceived organizational support. Helping them understand the importance of each search task is one step. Helping them see the bigger picture and understand the significance of their task is a useful task for the team leader and SAR managers. As a general managerial rule, people are more motivated when they are engaged in a significant task and they understand how their work contributes to the overall situation (Hackman & Oldham, 1976).

Helping SAR volunteers connect with subjects and their families after the search is another method to help volunteers connect their SAR activities with important outcomes. This is an important and motivating way to help SAR members connect their actions with their values and improve ego-enhancement. As an example of this idea, in the summer of 2016, I interviewed the parents and SAR members involved in a search for a lost 3 year old boy in Union Bay, BC. This video "Lost Lachie" tells the story of the search from the perspectives of the parents and searchers. It is available on YouTube at: <https://www.youtube.com/watch?v=kedoZpkWWRy&feature=youtu.be>

To help understand the importance of this idea, I use the idea of prosocial motivation and prosocial impact (Grant, 2007). This is the degree to which a person makes a difference in the lives of others. It is the extent to which a person's actions protect, promote, and contribute to the welfare of others. In a study at a call-center focused on cold-calling to raise scholarship funds for students, Grant (2012) designed an experiment where one group of call-center employees spent 15 minutes talking to a student who received a scholarship because of the efforts of the call center. The student told the employees about how the scholarship changed and improved her life. A control group did not participate in this interaction with the student. The group who talked with the student had their donations increase four-fold for a month after the student interaction session. The control group did not have a significant increase or change in donations. Connecting SAR volunteers with the lost person and their families, when appropriate, would likely have a powerful effect everyone involved.

Finally, groups can use the VFMI and other measures to select new members. Using an appropriately designed selection survey can identify new members who are interesting in joining because of their values and a desire to increase knowledge. A well-designed survey can provide insight into



applicant's motivations to help teams select members who are more likely to remain with the SAR group over the long-term. Another measure is the Life Orientation Tool (Carver, 1995). This is a measure that can be used to select for higher levels of optimistic outlook among applicants. A person's general attitude toward SAR activities is partially shaped by a person's general orientation toward life. Optimistic people tend to have more positive attitudes and this helps increase perceived support, dedication, and ego enhancement.

## References

- Carver, C. 1995. Distinguishing optimism From neuroticism (and trait anxiety, self-mastery, and self-esteem): A reevaluation of the Life Orientation Test, *Journal of Personality and Social Psychology*, 67, 1063-1079.
- Clary, E. G., Snyder, M., Ridge, R. D., Copeland, J., Stukas, A. A., Haugen, J., & Miene, P. (1998). Understanding and assessing the motivations of volunteers: a functional approach. *Journal of personality and social psychology*, 74(6), 1516.
- Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I. L., & Rhoades, L. 2002. Perceived supervisor support: Contributions to perceived organizational support and employee retention. *Journal of Applied Psychology*, 87, 565-573.
- Fishbein, M., & Ajzen, I. (2011). *Predicting and changing behavior: The reasoned action approach*. Taylor & Francis.
- Gill, J. D., Crosby, L. A., & Taylor, J. R. (1986). Ecological concern, attitudes, and social norms in voting behavior. *Public Opinion Quarterly*, 50(4), 537-554.
- Grant, A. M. 2007. Relational job design and the motivation to make a prosocial difference. *Academy of Management Review* 32: 393–417.
- Hackman, J. R. and G. R. Oldham. 1976. Motivation through the design of work: Test of a theory." *Organizational Behavior and Human Performance* 16, 250–279.
- Kurtessis, J. N., Eisenberger, R., Ford, M. T., Buffardi, L. C., Stewart, K. A., & Adis, C. S. (2015). Perceived organizational support a meta-analytic evaluation of organizational support theory. *Journal of Management*, DOI: 0149206315575554.
- Michaels, C. E., & Spector, P. E. (1982). Causes of employee turnover: A test of the Mobley, Griffeth, Hand, and Meglino model. *Journal of applied psychology*, 67(1), 53.
- Oostlander, J., Güntert, S. T., van Schie, S., & Wehner, T. (2014). Leadership and volunteer motivation: A study using self-determination theory. *Nonprofit and Voluntary Sector Quarterly*, 43(5), 869-889.
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and psychological measurement*, 66(4), 701-716.
- Tang, F., Morrow-Howell, N., & Choi, E. (2010). Why do older adult volunteers stop volunteering? *Ageing and Society*, 30, 859-878.