

Exploring Collective Effervescence in the Context of the Christian Church

Micaela Del Cid, University of Colorado Boulder Sociology Undergraduate

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Thesis Advisor:

Dr. Tim Wadsworth, Sociology Department

Honors Council Representative:

Dr. Amanda Stewart, Sociology Department

Outside Reader:

Kim Dickey, Art and Art History Department Associate Chair

ABSTRACT

Collective effervescence (CE) is the experience of intensified emotions and emotional connections to others. The concept recognizes that the experience is clearer and more intense in rituals and special events but also assumes that CE occurs in daily rituals and commonplace occurrences. This paper reports on research regarding collective effervescence in the church context. Through a survey utilizing a modified version of Gabriel et al.'s (2019) original TEAMS index to measure CE, I observe the relationship between CE, frequency of church participation, the purpose for attending church, and demographic factors. Through multiple regression analysis, I find that people who attend church and church events more frequently experience more CE. People who go to church for the purpose of learning about God experience more CE than those who go for any other reason. This contributes to the conversation about participation and collective effervescence, as mentioned by Xylgatas (2015), Liebst (2019) and Corcoran (2019). It also addresses CE in a more mundane context, as discussed by Collins (2004), Gabriel et al. (2019), and Vine (2023). It opens a conversation about ordinary church context, previously not mentioned in the study of CE.

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INTRODUCTION

Effervescence, as defined by the Merriam-Webster dictionary (2024) is the formation of bubbles and fizz in a drink. Picture an Alka-Seltzer tablet being dropped into a glass of water, the bubbles bursting from the little tablet, creating movement and liveliness in a previously static glass of water. I love this illustration when discussing my topic of *collective* effervescence. While the concept of collective effervescence has several different interpretations, it centers around the intensification of emotions, sacredness, and connection (Rime and Paez 2023, Collins 2004). It is an abstract concept about the collective sentiments created in the physical proximity of collective groups of people, both a sociological and social-psychological concept. This image, of an explosion of bubbles, fizz, and movement is a beautiful visual to keep in mind while trying to grasp the concept. In this paper, I will explain several perspectives on collective effervescence, referred to as CE going forward, and discuss my research into collective effervescence in the context of the Christian church.

Christians make up 31.5% of the world's population. That is 2.2 billion people (Pew Research 2014). The concept of collective effervescence has been around since 1912, created by Durkheim to explain what happens during religious rituals. Although both CE and religion have been studied for so many years, few studies have been done observing CE and an ordinary church setting, like the weekly church service. Given its origin, CE is intrinsically tied to religion, and Christianity being the most common/practiced religion in the world, I explore the connection between the people's participation in church and their experience or lack thereof of collective effervescence.

Rodney Stark and Laurence Iannaccone (1994) explain a theory of religion as an economy: churches succeed when they supply what the people demand. Thinking of things people seek to gain from church/religion leads me to focus on CE in the church context. Gabriel et al. (2019) state that collective effervescence is something people search for, something that keeps people going (24). If collective effervescence occurs in the church, it may fit into this supply-and-demand religious economy.

Given this, I ask whether CE occurs in the church setting. Is there an association between CE and church attendance and participation? What factors affect the experience of CE? Does CE have a relationship with the reason people choose to attend church? My research on these questions offers initial insights into the role of CE in the church context and suggests avenues for future research.

Positionality

I would like to note that I am a Christian. This study is personal to me because of my experience in church and with biblical teachings. I learned about CE for the first time in my classical sociological theory class and it reminded me of a passage in the Bible, Matthew 18:20 that states, “For where two or three gather in my name, there am I with them.” I go to Flatirons Community Church, a church with a strong emphasis on attending in person. The pastor mentioned this verse once and encouraged the congregation to attend in person because he stated that the Lord moves in special ways when in person. I connected the two things in my head, coming from the personal belief that one of the ways God speaks to people is through emotions. I thought perhaps CE was a tool used by God to strengthen the bond of the church. Despite this personal connection, I have done my best to approach this study objectively and have read many

non-religious perspectives on CE while utilizing my connections at my current and past churches to collect survey responses.

LITERATURE REVIEW

Defining Collective Effervescence

Collective Effervescence is a concept created by Emile Durkheim yet never outright defined in his work. Those studying this concept have understood it in different ways, creating a wide range of definitions. Yet, despite their differences, all definitions explore collectiveness and what occurs when people come into physical proximity with groups of people. An overarching definition for CE would be the intensification of emotions and connections to others and to the ritual they're participating in. In his book, "*Elementary Forms of Religious Life*" (1912), translated in 1995, Durkheim first mentions the term effervescence when discussing rituals. Durkheim, as a founder of functionalism, sought to find ways society functioned, and how systems, rituals, and social groups work to create a unified, functioning society. This examination led to deep, almost anthropological research of religious rituals from around the world, and from numerous different cultures (Rime and Paez 2023). Throughout these examinations, Durkheim found that a pattern of unusual, abnormal behavior is a common occurrence that happens when people come together and perform rituals together. Durkheim observed the primitive cult, animist., and sexual Rituals but more modern CE researchers have observed festivals (Liebst 2019), firewalking rituals (Xylgatas 2015), feminist demonstrations (Zumeta 2020), and more commonplace rituals, such as workplace interactions (Vine 2023), daily habits and occurrences with others (Gabriel et al. 2019), and more.

There are two main approaches to collective effervescence, one with a focus on emotional intensity and the other with a focus on connectivity. Rime and Paez (2023) deconstruct the steps mentioned by Durkheim (1912) that ultimately led to the pinnacle occurrence of effervescence. They narrow the concept down to the high-intensity manifestations that are the result of emotional outbursts and experiences that assembled participants display during large collective gatherings: rituals, concerts, etc. (2023:1316). Rime and Paez go into further detail about the ways in which Durkheim (1912) describes the manifestations of effervescence, which range from violent or sexual outbursts to an experience of transformation (2023:1318). Also focusing on CE as the pinnacle of emotional experiences, Pizarro et al (2022) define CE as “a state of intense shared emotional activation and sense of unison that emerges during instances of collective behavior, like demonstrations, rituals, ceremonies, celebrations, and others” (2022:1). This thought is echoed by Zabala et al. (2023), who consider CE “collective emotional exaltation that results and arises from contagion and emotional feedback between the people gathered” (2023:2).

Collins begins to balance the focus of CE as intensified emotional experiences with a focus on community and a sense of connection with others. He defines collective effervescence as an intensification of shared experience, “The experience of heightened mutual awareness and emotional arousal” (Collins 2004:36). Collins strongly connects the concept of CE with the concept of collective consciousness, this concept was defined by Durkheim as “the totality of beliefs and sentiments common to the average members of a society” (Durkheim 1893:39). Collins understands Durkheim’s CE as a contributor to collective consciousness, a step that helps create and reinforce the shared beliefs and values of society. This contrasts with Rime and Paez’s perspective, in which collective consciousness is a step in the process of creating CE. Rime and

Paez (2023) theorize that collective consciousness is essential to creating CE because when people share a value/belief system, it allows them to experience emotions based on that belief/thought system. This changes the approach to CE in that Rime and Paez (2023) observe how collective consciousness provides a basis for and contributes to CE. Without any shared beliefs or values, Rime and Paez would argue that it is not possible to create CE while Collins would argue that an experience of CE could create a common belief or value between very different people.

While Xylgatas (2015) and Liebst (2019), focus on the intensity of emotions, Gabriel et al. (2019), and Vine(2023), shift their understanding to the strengthening of interpersonal connections. Gabriel et al. (2019), whose work is the foundation of my research, define CE as “the sense of connection and meaning that comes from collective events” (2019:1). Gabriel et al. (2019) emphasize the intensified sense of meaning attributed to the overall event, which creates an emotional connection to that event, yet their focus is more on the sense of connection that is formed. Xylgatas et al. (2011) use very similar language in their definition: “a feeling of belonging and assimilation produced by collective ritual action” (2011:2). Xylgatas (2015) emphasizes ritual and ritual events, referencing the work Durkheim did in ritual and how this concept stemmed from ritual. It specifies ritual more than Pizarro et al.’s (2022) definition yet is very different from Pizarro et al.’s because Pizarro et al. only mention emotions concerning connection to other people. The emphasis in Xylgatas’s (2015) work is on a strengthened sense of connection to others and increased cohesion (Xylgatas 2015:63). This echoes Collin’s process of collective effervescence as a contributor to the creation of collective consciousness.

Unlike Xylgatas (2015), Vine (2023) adapts the concept of CE to a less intense experience that is more commonplace. This is partially based on Collins's (2004) work in ritual theory. Collins considers the importance of daily rituals such as a goodnight kiss or prayer or introduction rituals like saying hello or using different ways of referring to someone. He then explores CE in rituals that involve communal participation. The idea of CE in a ritual context continues yet has changed from the previous definitions of rituals as events, to more commonplace rituals.

In the next section, I explore the way effervescence has been previously researched. Most studies use one of two lines of thought, collective effervescence as an intensified, collective action/pinnacle of consciousness, or collective effervescence as an intensified collective experience. For the purposes of this paper, I adopt much of Gabriel et al.'s (2019) definition of collective effervescence because I worked closely with the work of Gabriel et al. (2019) when developing a survey instrument for the current study. Gabriel et al. (2019) acknowledged both Durkheim's concept of CE being more a sacredness and a divine connection to others and the divine while Gabriel et al. (2019) view Rime and Paez's (2023) description to be the experience of the present. I also rely on Vine's (2023) perspective of a simpler, less intense, and more everyday occurrence. I define CE as the experience of intensified emotions and emotional connections to others, recognizing that the experience is clearer and more intense in rituals and special events but also assuming that CE occurs in daily rituals and commonplace occurrences.

Previous Research

Despite the in-depth conceptualization of collective effervescence, few studies exist that directly study and quantify CE. Being an emotion-related concept, it isn't easy to measure.

However, there have been a variety of attempts to do this. Pizarro et al., (2022) review an array of studies that mention CE and various definitions of CE. Through the comparison of studies, Pizarro et al. (2022) found that, because most studies use similar methods, there appeared to be no effect of publication bias on the results. They found CE to be strongly associated with self-transcendent emotions, social support/ group identification, self-transcendent beliefs and values, empowerment-related concepts, and positive collective emotions. All of the following studies except for Vine (2023), which was more recent than Pizarro et al. (2022), are mentioned in this paper.

Xylgatas (2015) studied fire walking rituals, and specifically measured and compared the heart rates of active fire walkers, supporters, and spectators. The study concluded that participants and supporters of participants showed about equal amounts of emotional engagement and therefore experienced about the same amount of CE, while spectators without relationships to the participants experienced significantly less engagement. This was possible by utilizing heart rate as a way of quantifying emotional engagement. That engagement was then treated as an indicator of CE. Xylgatas (2015) interpreted these results to mean that those with a pre-existing connection to the ritual were more involved through emotional investment in their friends or family. Active involvement or connection to other participants were both considered forms of participation. Xylgatas (2015) then theorized that participation or previous attachment to the ritual is much more likely to prompt an experience of CE while simply spectating is more likely to result in unaffectedness and less CE in comparison to those with investment in the ritual. Xylgatas's (2015) work closely followed Rime and Paez's (2023) and Durkheim's (1912) focus on special rituals. His approach to quantifying CE varied greatly from many other researchers because of his unique use of heart rate technology.

Liebst (2019), like Xylgatas (2015), also studied an out-of-the-ordinary event, in this case, the Roskilde Festival(Northern Europe's largest music festival in 2011, located in Denmark(Liebst 2019)). His conclusion, that spatial closeness results in more collective effervescence, supports Rime and Paez's (2023) first step in the ritual process, which Rime and Paez (2023) state is collective assembly. However, Liebst (2019) also finds that even if a group is unfocused and maybe scattered in thought, the simple fact of people being in a shared space inspires intensified emotions. This supports Collins's (2004) claim that spectators, when in a space with others who are all participating in the same activity/action, though perhaps unfocused, experience CE. This also contrasts with Xylgatas's (2015) conclusion that spectators do not experience the levels of effervescence that participants do. I think it is important to note the difference in methods that contributed to the difference in results. Xylgatas (2015) used heart rate measurements while Liebst (2019) used questionnaires and observation to measure CE. and spatial analysis, both utilizing advanced technology in unique ways. Xylgatas' (2015) focus, however, was on emotional proximity, while Liebst's (2019) was about physical proximity, utilizing spatial analysis tools to examine the impact of spacing and population density on collective effervescence. Thus, while the studies result in different findings, they do not necessarily contradict each other.

Like Xylgatas (2015) and Liebst (2019), Gabriel et al. (2019) began their research with a focus on large, out-of-the-ordinary events. After confirming the success of their TEAMS measure of CE (mentioned previously), Gabriel et al. (2019) inquired as to whether CE also occurs in commonplace contexts. They concluded that people experience CE an average of once a week, yet intensified CE during large events such as concerts. Gabriel et al.(2019) utilized surveys with the TEAMS index, initially asking their participants to reflect on previous big

events. They then repeated their research process but asking participants to think about more ordinary circumstances, such as daily rituals, or creating circumstances for the participants to then reflect on. This created several data sets, allowing Gabriel et al. (2019) to compare the CE results of large events to those of more mundane events. What's unique about this study is that the participants were informed about CE and were told in many of the data sets to specifically reflect on a large event, not necessarily the same event, differentiating this study from Xylgatas (2015) or Liebst (2019).

Vine's (2023) research focuses on everyday life yet is narrower and more specific than Gabriel et al.'s (2019). In his study, Vine (2023) was trying to determine the importance of physical co-presence in a workplace using his definition of CE in the context of more everyday, commonplace experiences, working under the assumption of collective effervescence as a bonding experience when people are in physical proximity in comparison to online/virtual proximity. Vine (2023) explored Rime and Paez's (2023) first step to CE, the importance of physical proximity in a group setting. COVID-19 is an important inspiration to this study because of the requirement for people to work from home and the rising depression and poor mental health during this time (Kupcova et al. 2023). This study is quite relevant to the current work because it refers to the ways CE occurs in daily life, a workplace people attend frequently in contrast to Xylgatas's (2015) or Liebst's (2019) study of rarer, unique rituals. Vine(2023) follows Collin's focus on daily rituals. Collins (2004) explained that ritual theory is looked down upon by functionalist critics because of the assumption of everything being a ritual, yet states that it is important to pay attention to mundane rituals because they can have deeper implications. In this way, Vine (2023) studies CE as it comes from the daily ritual of going to work in physical presence with coworkers versus the isolation of online work. Vine's (2023)

study, like Liebst's (2019), concludes that physical proximity is a requirement for the experience of CE, supporting Rime and Paez's (2023) claim of physical gathering as the first and most important step to creating a collective effervescent experience.

Existing Literature on Religion and Collective Effervescence

Corcoran (2019), begins to turn the conversation toward religion, specifically church services, in a way that has not been done before. Corcoran uses Collin's framework of collective emotions but, unlike the other researchers I have mentioned, Corcoran focuses on emotional energy, which she describes as being the product of collective gatherings. Her definition of emotional energy parallels Zabala et al.'s (2023) definition of CE because of the focus on emotional intensity and activation. Corcoran does not focus on a sense of collectivity or sacredness, like other CE researchers, likely contributing to her use of the term *Emotional Energy*, instead of collective effervescence. Corcoran investigates the relationship between this emotional energy at church and commitment to civic engagement through the survey.

While Corcoran (2019) does not reference Stark and Iannaccone's (1994) theory of religious economy, she looks at an almost economic relationship between emotional experiences at church and both formal and informal civic engagement. (For example: donating to charity or visiting sick people.) People who reported more emotional energy had a higher commitment to civic engagement (Corcoran 2019). She also found that more emotional energy prompted more giving and volunteering within the church. This was important to her because even small individual donations create a large churchwide impact. This connects to Stark and Iannaccone's (1994) theory of religious economy.

As people who closely studied religion, Stark and Iannaccone (1994) observed that religion functions in a supply-and-demand format, like the economy. People attend churches at higher rates when the churches provide what the people want. (Stark and Iannaccone 1994) This is supported by Corcoran's (2019) conclusion that people are more involved in volunteering and donating when more emotionally invested. I adopt the perspective that CE might fit into that supply-demand, it is something that people seek and want to experience.

Hypotheses

Based on the existing theory and research, I have created four hypotheses that will be tested in the current research.

Hypothesis 1: People experience collective effervescence when at church. As mentioned, in studies such as Vine (2023) and Gabriel et al. (2019), collective effervescence is experienced in mundane circumstances. I hypothesize that, like the workplace or the ordinary events in some of Gabriel et al.'s (2019) data sets, people also experience CE in church services.

Hypothesis 2: People who participate more in church experience more collective effervescence. Participation could include frequency of attendance to services and other church events, volunteering, and in-person church attendance. This is grounded on Xylgatas's (2015) conclusion that people who were actively in the ritual, or who had a connection to those in the ritual, experienced more collective effervescence than others. In the church context, I think this means that those who attend church events more frequently and attend church in person experience more collective effervescence. I also think this means that individuals who volunteer in church will experience more collective effervescence than those who don't.

Hypothesis 3: Women experience collective effervescence more than men. This is based on Stark's religious economy and the assumption that collective effervescence is a driving factor prompting people to attend church. According to the Pew Research Center (2014), women attend church at much higher rates than men. Under the idea of religious economy, I theorize that women go to church more potentially because they experience more of the collective effervescence, they are looking for than men do.

Hypothesis 4: People who go to church with the desire for community experience more collective effervescence than those whose purpose for attending church is to learn about God/faith, to connect with God, or because of ritual. Xylgatas (2015) found that people with a social connection to participants experienced more collective effervescence than those who were only spectators with little social connection. I hypothesize that similarly, those who have connections to others will be more emotionally invested and experience more CE than those who prioritize any other purposes of the church.

METHODS

A series of quantitative studies about collective effervescence were collected and analyzed in an article by Pizarro et al. (2022). Of these studies, they identified 50, including those of Gabriel et al. (2019), Xylgatas (2011/2015), Corcoran (2019), and others, that used individual-level responses. Amongst these studies, there were two primary scales utilized to measure CE perceived emotional synchrony or PES, and the Timing, Emotionality, Affectivity, Motivation, and Symbolism (TEAMS) index, Gabriel et al.'s (2019) finalized measure of collective effervescence. Both PES and TEAMS require surveys, questionnaires, or interviews to collect data. Gabriel et al. (2019) had a couple of iterations of her TEAMS approach, but I used

the first version of Gabriel et al.'s (2019) CE measure, the reason will be explained in the following section. Given previous research and the context of the church, I chose to use a survey.

Survey Design

The primary purpose of my survey was to measure collective effervescence within the context of the Christian church and specifically within the context of church participation. Because of the complexity of the concept, I decided it would be best to utilize a pre-existing index. Gabriel et al. (2019) had gone through an extensive, understandable process of creating an index (TEAMS, as mentioned above) and therefore I decided to utilize their index, with some modifications. As mentioned above, Gabriel et al. (2019) include the concept of meaning in their definition of CE. In other words, they focus on the way people find meaning in events or through the emotions prompted by CE. This is not a focus in my study, and I do not mention meaning in my definition of CE. The second iteration of TEAMS was narrowed down from 18 questions to 8, however, the questions were partially aimed at the answer of people finding meaning in the event. In other words, I found that the first TEAMS index was broader and included all aspects of CE while the second TEAMS index had a focus on purpose. Because of this, I chose to use the 18-question index because it had a broader focus.

To create a single measure of CE out of the 18 questions, Gabriel et al. (2019) used factor analysis. Because of the focus on meaning, one question she found to be important to her measure was the question "I felt as if there was a greater purpose to the event," (Gabriel et al. 2019:9) (Appendix B). When reworking the questions to better address the context of church participation, I found this to be highly ambiguous. "A greater purpose" than what? What is the comparison? Gabriel et al.'s (2019) reduced 8-question index included that question about

purpose. Additionally, the other questions asked in the original index seemed like they might have more relevance to my research. For example, the question “I felt wonder and/or amazement at the event.”(Gabriel et al. 2019:5)(Appendix B) Because of this, I ended up with 17 questions, all modified from Gabriel et al.’s (2019) original 18 and excluding the greater purpose question.

Because the respondents of Gabriel et al.’s (2019) study were reflecting personally on an event, all the questions referred to a specific event, for example: “The event made me feel closer to the people who were there” (Gabriel et al. 2019:10) (Appendix B). I wanted to know about the overall experience of being at church because church services are not one-time events for most respondents. I also did not want to focus on only one service because there could be extenuating circumstances that could skew the data. Therefore, I adapted most of the questions by adding “generally” and changing the tense to the present, for example: “Church generally makes me feel closer to the people who attend at the same time as I do” (Appendix A).

To test my other hypotheses, I asked a variety of other questions. Inspired by Vine’s (2023) study, I asked the question, “When you attend church, do you attend in person or online?” I gave a variety of possible answers but only 3 were used by the 89 people who answered, and those responses were “only in person”, and “mostly in person and sometimes online.” And “Mostly online but sometimes in person.” Along the lines of Xylgatas’s (2015) question of whether active versus passive participation changes effervescence, I produced four questions asking about frequency of church participation: frequency of attendance to church services, frequency of attendance to large events, frequency of attendance to small events, and frequency of volunteering.

I was also interested in demographic data to address my hypothesis about women experiencing more CE than men and to look into any other factors that might impact CE. I asked about gender, race/ethnicity, level of education, income, and marital status. (Appendix A) I translated the survey into Spanish to receive more responses and therefore began the survey with a question about their preferred language, English or Spanish, so they could take the survey more easily. In addition to demographic factors, I wanted to know about the types of churches people attended and asked respondents to name the churches they attended. I did not end up using this data because I had very small groups of people in each church, many churches only listed once, and only one church with more than 10 respondents (32 respondents from a large non-denominational church). The only open-ended question I asked was why people go to church. I wanted to know if there were patterns in reasons for attending and if those patterns were related to CE. This survey/research was approved by the CU IRB on Nov 14, 2024.

Distribution

My plan for distribution was originally to hand out QR code flyers at churches and to ask pastors to email my survey out to their congregations. Except for two instances, both methods of distribution fell through. Pastors either did not respond to me or stated that it would interrupt the worship of their congregations therefore I could not rely on Sunday services to ask for survey participation. The original plan had been to get a sample from a variety of types of churches, with at least 2 churches in Spanish and a variety of denominations for an attempt at a stratified overall sample. I was able to adapt though and changed to a convenience and snowball sample.

After utilizing my connections with other Christians and asking that they take and share my survey, I was permitted by the College Ministries director at a large church to pass out flyers

at the college group and by the Connect Ministries director at the same church to pass out flyers and share my survey through a Facebook group chat. One pastor allowed me to distribute the survey during the church service, allowing me to go up on stage and present myself as a CU honors student researching emotional engagement and church participation. I then passed out flyers after the service. Through these various approaches, I received an initial total of 132 responses.

Statistical Analysis

The primary focus of my survey was collective effervescence so my first step in statistical analysis was to drop any responses that did not complete all 17 collective effervescence questions. I also excluded responses from any respondents under the age of 18, leaving me with 89 usable responses. Following Gabriel et al.'s (2019) example, I then ran a factor analysis, using varimax rotation, with all 17 questions to create a singular CE score for each response. There were 7 different iterations of the overall factor score but I used the first and primary score because it had the highest eigenvalue (5.138). The eigenvalues of the other factors ranged from 0.165-1.982. I then ran a factor analysis with the 4 participation questions: how often do you: go to church?, volunteer?, Attend bible studies or other regular church-related events?, and Attend special church events (retreats, camps, etc.)? (Appendix A). Using a correlation matrix, I found that volunteering did not correlate with the other three factors while the other three were somewhat related to each other. Because of this, I used only the questions about attendance to create a new factor score for generalizing the frequency of church participation. The primary factor had an eigenvalue of 1.894.

In examining the one open-ended qualitative question in my survey, asking why people go to church, I found a pattern of 4 codes I used to categorize the answers, which were mentions of (1) Community (friends, meeting people, congregating with other believers), (2) Connection to God (feeling of connection, worship, relationship with God), (3) Learning (spiritual growth, teachings, knowledge about God), and (4) Ritual (because God/the Bible says so, to participate in rituals, feeling of supposed to). I then made each code a variable with a 1/0 score if people mentioned it or not. This made it possible for me to run a quantitative analysis in SPSS to investigate the relationship between the self-reported reasons to go to church and CE.

RESULTS

Success of Measure

The first result I found was that I was able to successfully measure collective effervescence through the questions I asked in my survey. To address any of my hypotheses, I needed to prove that my modified index of questions, created by Gabriel et al. (2019), would work to measure CE. If the answers had little to no pattern, for example, it would indicate that the questions did not collectively capture the concept of CE. Running a factor analysis revealed that the answer patterns could successfully be combined to create a single measure. The highest eigenvalue created from the factor analysis was 5.138, suggesting that the various indicators can be combined to represent a common underlying construct. The CE factor has a range of 4.78 (Table 1). This variation strengthens the conclusion that the questions used can be combined to create a unified construct of CE.

Table 1

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Collective Effervescence	89	-3.12109	1.66631	.0000000	1.00000000
Gender: Female:1 Male:2	88	1	2	1.17	.378
Frequency of Church Service Attendance	88	4	9	7.30	1.270
Frequency of Volunteering	87	1	9	5.62	2.190
Frequency of Church Participation (with volunteering)	85	-2.4352	2.4876	.0000000	1.00000000
Frequency of Church Participation (without volunteering)	87	-2.63751	2.32399	.0000000	1.00000000
Frequency of In-Person Attendance	89	1	5	2.01	1.173
Reason for Attending Church: Community	89	.00	1.00	.4494	.50026
Reason for Attending Church: Connection to God	89	.00	1.00	.2697	.44630
Reason for Attending Church: Learning	89	.00	1.00	.4270	.49744
Reason for Attending Church: Ritual	89	.00	1.00	.1685	.37647
Valid N (listwise)	84				

Correlation Results

To identify relationships between the variables, I first examined the correlations between the variables. I found no correlation between any of the demographic questions (age, education, income, race/ethnicity, language) (In Appendix A) and collective effervescence. Only gender appeared to be correlated with CE, yet the coefficient did not reach statistical significance. This suggests that demographic factors may not influence collective effervescence. Because of the moderate-sized correlation between gender and CE, however, it felt important to continue to include it in my multiple regression analysis to further explore its possible impact on CE and to control for any confounding effects it may have.

Focusing on my next hypothesis, that frequency of church participation impacts CE, I ran the same means and correlation matrices with my 4 participation questions (Appendix A). I found that there was a correlation of 0.351 (significant at the $p < .01$ level) between CE and how

often people attended a regular church. This is a strong correlation, suggesting that, without controlling for other factors, people who attend regular church services more often experience more collective effervescence.

My initial plan had been to create a factor analysis score with all 4 of my participation questions to indicate an overall church participation score. This changed when I realized that, while the frequency of smaller church event attendance, such as weekly bible studies, and larger church event attendance, such as conferences, seemed to have a slight correlation with CE, it was not quite statistically significant. I also found that the frequency of volunteering had no apparent correlation with CE (Table 2). My hypothesis based on Xylgatas's (2015) study predicted that volunteers, not only attendees to the service but contributors to the church service, would experience higher CE than those who only spectate or attend. This was not the case.

I created the factor analysis score anyway, to see if perhaps the combined factors might have an overall correlation with CE. As seen in Table 2, the overall factor score did not correlate with CE at all. This was interesting because I had grouped all 4 questions in my concept of church participation. I then created a factor analysis omitting the frequency of volunteering and found that that score did correlate to CE and at the .05 level. While not as strong a correlation as church service attendance alone, this score means that people who attend church services and large and small events experience more collective effervescence. I decided to use this factor score because I felt it gives a better overall understanding of church participation.

Table 2

Correlations											
	Collective Effervescence	Frequency of Church Service Attendance	Frequency of Church Service Attendance	Frequency of Church Participation (with volunteering)	Frequency of Church Participation (without volunteering)	Frequency of In-Person Attendance	Reason for Attending Church: Community	Reason for Attending Church: Connection to God	Reason for Attending Church: Learning	Reason for Attending Church: Ritual	Gender: Female:1, Male:2
Collective Effervescence	1	.351**	.188	.213	.247*	.130	.107	.049	.279**	.053	-.136
Frequency of Church Service Attendance	.351**	1	.527**	.667**	.757**	-.231*	.172	.200	.238*	.038	.129
Frequency of Volunteering	.188	.527**	1	.873**	.874**	-.120	-.066	.037	.182	-.254*	.286**
Frequency of Church Participation (with volunteering)	.213	.667**	.873**	1	.961**	-.299**	-.022	.152	.187	-.103	.226*
Frequency of Church Participation (without volunteering)	.247*	.757**	.874**	.961**	1	-.254*	.008	.170	.223*	-.124	.195
Frequency of In-Person Attendance	.130	-.231*	-.120	-.299**	-.254*	1	.069	-.093	.109	-.082	-.026
Reason for Attending Church: Community	.107	.172	-.066	-.022	.008	.069	1	.265*	-.049	-.105	.011
Reason for Attending Church: Connection to God	.049	.200	.037	.152	.170	-.093	.265*	1	.039	-.138	.062
Reason for Attending Church: Learning	.279**	.238*	.182	.187	.223*	.109	-.049	.039	1	-.025	-.029
Reason for Attending Church: Ritual	.053	.038	-.254*	-.103	-.124	-.082	-.105	-.138	-.025	1	-.115
Gender: Female:1, Male:2	-.136	.129	.286**	.226*	.195	-.026	.011	.062	-.029	-.115	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

I also looked at the correlation between in-person and online attendance and the effect that it had on CE. Of my 89 respondents, they all chose one of only 3 of the options I offered for in-person/online attendance. Those responses were (1) Only in person, (2) Mostly in person and sometimes online, and (3) Mostly online and sometimes in person (Appendix A). As mentioned previously, I had anticipated that I would have parallel results to Vine's (2023), who found that people experienced more collective effervescence when in person versus online. Additionally, I anticipated that Liebst's (2019) result that the more physical proximity people had with the event would result in more collective effervescence. My results did not support either of these two findings. I found that there was no relationship between CE and whether or not a respondent attended services in person or online (Table 2). It seems that in this data set, the method of attending church is not related to the experience of CE. This is not at all generalizable because only 4 of the 89 respondents chose *mostly online* and therefore there was not enough variety to consider much of any result here to be confident in the findings.

The final thing I looked at was the purpose of attending church. I had anticipated finding that people who stated attending church services for the purpose of the community would experience more CE than those who stated other reasons. I expected this because Gabriel et al. (2019) stress the importance of an increased sense of community in their definition of CE and Gabriel et al. (2019) found that people who expected to experience CE, including the increased connection to others that occur due to CE, did experience CE more than those who didn't expect to experience it. Additionally, because CE is about collective emotions and consciousness, if the reason for going to church is community, I thought it would indicate that CE is intrinsically tied to connection to other people. My results contradicted this hypothesis. I found that people who stated they attended church services for the purpose of learning about God/faith experienced more collective effervescence than those who didn't (Table 2). Not only that, but I found that none of the other reasons/purposes for attending church that were mentioned (connection to God, community, and ritual) were correlated with CE (Table 2).

Multiple Regression Results

To examine the relationship between the various independent variables and collective effervescence, I used multiple regression analysis. I included the following variables in the model: gender, frequency of church participation, without volunteering, 3 reasons people stated they attend church but left out community as a reference category. Finally, as mentioned above, because of its moderate (though not statistically significant) correlation with CE, it felt important to include gender in the model. Due to a small sample size and relatively low levels of statistical power, I did not include the other variables for which there was no evidence of a relationship with CE, in the regression analysis.

Table 3**Multiple Regression Results**

Model		Unstandardized Coefficients		t	Sig.
		B	Std. Error		
1	(Constant)	.231	.369	.625	.533
	Frequency of Church Participation (without volunteering)	.230*	.109	2.114	.038
	Gender: Female:1, Male:2	-.424	.276	-1.534	.129
	Reason for Attending Church: Learning	.446*	.212	2.100	.039
	Reason for Attending Church: Connection to God	.086	.232	.369	.713
	Reason for Attending Church: Ritual	.096	.290	.332	.741

a. Dependent Variable: Collective Effervescence

*correlation is significant at the .05 level (2-tailed)

As seen in Table 3, after controlling for church participation and reasons for attending church, gender does not appear to be related to the likelihood of experiencing CE, but its presence in the model did not change the significant relationships between the desire to learn about God/faith as the motivation for attending church and church participation and CE. Both are still significant at the .05 level, with learning about God/faith as the reason for attending church having a regression coefficient of .446 and Church participation having a regression coefficient of .230.

These results mean that people who stated learning (about God, growing in faith, hearing biblical teaching, etc.) as their purpose for going to church experienced collective effervescence more than those stating their purpose of attending church was community (congregating with Christians, friends, etc.). Additionally, people stating connection to God (worship, sense of God's presence etc.) or ritual (because they always have, because the bible says to, etc.) as their primary purpose of attending church had no significant differences in experiences than those who stated attending for the purpose of community. The second finding was that those who attend church and church events more frequently experience more collective effervescence than those who attend less frequently. Gender does not have enough of a relationship with CE to say it has any effect on predicting if people experience CE more than others and neither do any of the other reasons stated for going to church.

DISCUSSION AND CONCLUSION

Because of my research, we now know that people who attend church more frequently experience more collective effervescence than those who attend less frequently. We also know that people who go to church for the purpose of learning about God/faith experience more CE than those who listed any other purpose for attending.

Context of Collective Effervescence

As mentioned in my results section, I was successfully able to measure CE within the context of church attendance and participation. This signifies a couple of things. Primarily, it means that CE is being measured by my index of 17 questions but also that my hypothesis (H1), that people experience CE when at church, is supported by my research.

Both my H1 and H2 address the importance of context and how it relates to CE. I found that many studies have addressed CE in rituals or events, however, besides Corcoran (2019), I did not previously find studies that explored CE in the more mundane setting of the Church. My work addresses CE in a more commonplace context, as both Vine (2023) and Gabriel et al. (2019) did.

Vine (2023) explored CE in the workplace, a daily setting that most people experience 5 days a week. By talking about church generally, as something attended regularly, my quotidian context for CE is similar to the context in which Vine (2023) did his research. Vine (2023) found that CE requires at a minimum intermittent physical assembly as a prerequisite for CE, a thought echoing collective assembly as Rime and Paez's (2023) first step for CE. My research found that virtual versus physical presence at church had no impact on CE. This could potentially be because none of my respondents reported only attending church online. A few people mentioned attending mostly online but sometimes in person, however, this still indicates intermittent assembly. People who attended mostly online didn't attend services, small events, or large events as frequently as people who attended mostly in person. (Table 2) There was a statistically significant association between attending in person and my frequency of church participation factor score mentioned in my results section. This means that, while attending in person does not directly affect CE, it is associated with participation, which does affect CE. Given these findings, it may be useful for future work to include a wider range of people who attend church physically and virtually. This would allow us to learn more about the implications of physical and virtual participation in CE.

While Gabriel et al. (2019) did not focus on virtual versus physical presence, they did research the association of different circumstances, some mundane and some rare, with the

experience of CE. Gabriel et al. concluded that CE does occur in everyday life and that most people experience some form of CE at least once a week. My work is saying that church, a weekly event, is a place where CE does happen, meaning that like Gabriel et al. (2019), I might assume that those who go weekly, (as supported by my results) experience CE at church and therefore, I support Gabriel et al.'s (2019) hypothesis that people can experience CE at least once a week.

I think it's important to mention that in looking into my survey design, I realized that I did not specify church services as the context for CE. My question asks, "Thinking generally on your experience at church please respond to this question: On a scale of strongly agree to strongly disagree, how do you feel about these statements?" While I had intended to ask about church services, that was not outright specified, however, I often included the language "when you attend", which may have indicated to the respondent that I was asking about services. Regardless of the generality of my question/phrasing, I was able to address CE in the context of the church which was the goal of my research.

Importance of Participation

I define participation as church service and event attendance. While Corcoran (2019) observed church service attendance, she did not consider it participation but rather focused on community participation, as in more specific, interpersonal/civic engagement. She found that there was no relationship between frequency of service attendance and both church giving and commitment to civic engagement yet there was a correlation between emotional energy and both church giving and civic engagement. Emotional energy as defined by Corcoran (2019) is essentially the same concept as CE. While CE was my dependent variable, it was her independent variable and therefore her results did not focus on correlations with other factors and

CE. While Corcoran's (2019) work is the only research I found that also observed CE in the church context, our results were very different because of the different focuses of each study. Corcoran (2019) concluded that because her respondents all did go to church, perhaps simply going to church was enough for her results, no matter how frequently they went to church. Vine (2023) gives a similar statement when saying that what is most important to CE is intermittent physical proximity, not necessarily the frequency of physical proximity. This contradicts my findings that the frequency of attendance to church and church events is strongly correlated with CE. Additionally, I did not find a relationship between in-person attendance and CE in the way that Vine (2023) did.

I had hoped to find a correlation between volunteering, which is actively contributing to church, and CE based on Xylgatas's (2015) work (H1). However, I did not account for semi-active participation. Xylgatas (2015) found that those with a connection to the active participants experienced CE almost as much as the participants did. I did not account for those who are associated with volunteers, such as the pastor's family or the worship leader's close friend. I also think that the different forms of volunteering don't all work with Xylgatas's (2015) example. A closer way to replicate his work in the church setting might be to look at CE during baptisms, those baptizing and being baptized would be active participants, and those with a connection to the person being baptized would be the semi-active participants, all others being spectators. In my survey, I asked solely about volunteering, however, this could include anything from directing worship to teaching kids to stocking food. I think maybe specifying those who participate in the church service or those who participate in things like altar calls (when people go up to the stage to receive prayer) or baptism or similar things could yield results more similar

to Xylgatas (2015). As it stands right now, however, my research found that volunteering does not affect how much CE people experience at church.

Also based on Xylgatas's (2015) work, I expected that people stating community as their reason for going to church would experience more CE than others because of Xylgatas's (2015) finding that those connected to participants increased CE. In a future study, it would be helpful to ask whether participants feel connected to their church communities or not, however, right now the best measure of community I have is whether people stated it as a purpose for attending church. If stating community as the purpose for attending church is used as an indicator of connection to others, my results did not support Xylgatas's (2019) finding because there was no relationship between CE and community.

The way I defined participation best matches the research done by Liebst (2019), who found that simply being in the space with others creates CE. He found that the closer people were to others, the more CE they felt. While I did not study the distance between people, my finding that being present more often creates more CE can be associated with Liebst's (2019) conclusion. Both results have an emphasis on proximity, one measuring distance and the other frequency but the results are similar. Both differ from Xylgatas's (2015) conclusion that the primary factor for CE was actively participating. Both my study and Liebst's (2019) find that there is less importance on participation and more focus on presence.

Other Factors

In this survey, I did not see any correlations between demographic characteristics and CE. This could be partially because of the number of respondents included in the study. There was significant variation in education, income, and age with respondents generally clustered around the mean. Given the relatively small sample, it was difficult to identify strong patterns

associated with demographic characteristics. In a future study, it would be important to have more respondents and greater variation in their characteristics to have more generalizable results. church variation.

In my survey, I asked people which church they go to. As mentioned in my methods section about distribution, my original research plan was only to survey certain churches to observe the differences in factors and denominations. I had initially hoped to observe the churches in which I distributed my surveys to note the specificities of each church. Due to rejections and a lack of responses from pastors, I ended up distributing my survey through snowball and convenience sampling.

Recommendations for Future Research

This research could be heavily expanded upon by focusing on the church, rather than the individual. If surveying and observing several churches in-depth, one could potentially observe the factors of the church, rather than of the individual, that lead to CE. Survey questions could be modified to ask respondents which parts of the church service they resonate more with. In this way, qualitative analysis could be used to identify which aspects of the church seem to create CE. Studies could then further investigate what factors occur during those aspects of church and why those affect CE.

Another way of expanding the church as the unit of study rather than the individual is to observe the differences between small churches and mega-churches. Use of this index of CE questions could be used to determine if individuals experience CE and if the size of the church makes a difference. Additionally, you could potentially move away from the survey as a method and purely use observation. While Xylgatas (2015) primarily used heart rate measurements, the observation aspects of his work could be applied to the church context. Xylgatas (2015) observed

whether people appeared to be invested or if they were actively participating in the ritual. In the church context, this could look like observing how many people/what percentage of people raise their hands or make verbal comments, such as “amen”. This could also be explored by denomination, to note the differences between them.

In future studies, more respondents and maybe a different location for the distribution of the survey could produce enough variation to conclude the effects of race and marital status on CE. None of the studies I have mentioned in my literature review explore race and CE. I would argue that, because race is a social construct that does not affect emotions, it would be unlikely to find any correlation. However, it would be interesting if a future study could conclude that matter. Additionally, future studies could include more in-depth questions about culture and ethnicity, more than only race. The expressiveness and cultural practices of different ethnic churches or churches in different languages could be interesting to research to see if, not race itself, but culture impacts CE. Comparing different cultural practices and patterns among them could provide insight into why CE is stronger sometimes than others or if there are cultures that potentially experience more CE than others.

This also could lead the research in the direction of other/all religions and religious practices. Are my conclusions only true for Christian services or could they also apply to other commonplace religious services or non-religious rituals? By surveying more religions, the conversation would become about religious services in general or about the difference in CE between different religions. Is the religion fostering CE as well as the gathering of people or do people respond similarly in all religions? As mentioned before, culture often determines factors in rituals. Examining different religions commonly associated with a certain culture, for

example, Judaism could open a conversation about what cultural factors in religious rituals are most associated with CE.

I believe that from this research, much more is left to learn about the directionality of the relationship between CE and church participation/attendance. Would the church foster more CE by having increased attendance or would increasing attendance result in more CE? Does CE fit into Stark's model of religious economy? Does CE have any theological implications in the church? As a Christian, I believe that God demonstrates his presence through emotions. Could CE contribute to the sensation of God's presence? These questions could benefit from a study of theology as well as of CE.

All of these are questions that have sprung up after my research and that could be explored with further research. Yet this paper starts a conversation that, from my investigation, has not been addressed before.

Application

This research could be applied in practical, tangible ways to the church. According to Stark and Iannaccone's (1994) theory of religious economy, a great responsibility for church attendance and participation is on the church to supply specific things that people want, not to rely on the people's demand for religion to attract parishioners. Gabriel et al. (2019) argue that people experience CE at least once a week and that it is something that people look for. This also goes back to Durkheim (1912) and his study of what prompts people to return to rituals and to participate in activities otherwise unusual. I argue that CE can be considered something that people want. We know from my research that people who go to church more frequently experience more CE than people who go less frequently. That said, we cannot be confident regarding the causal direction of the relationship. More frequent attendance may increase the

experience of CE, or experiencing more CE may encourage people to attend church more frequently. We also know from my research that people who attend church with the purpose of learning about God/faith experience more CE than those who go for the purpose of community building.

In summary, churches could use this information to improve their “supply” of CE which might in turn bring in more people. Further research could be done about which factors in church affect CE and churches could then further emphasize those aspects to attempt to increase church participation. Stark explores the concept of “secularization” and claims that the responsibility for lowered church attendance does not lie in the disinterest of the people but partially in the church's lack of supplying things people want. This could be an important focus for the contemporary Christian church in the United States. The number of identifying Christians has dropped in the US from 78% in 2007 to 63% in 2019 (Pew Research 2022). Stark and Iannaccone (1994) claim that people’s desire for religion has not declined, the church’s lack of providing what the people want is the reason for increased “secularization”. By fostering CE, churches could potentially counteract this effect.

Conclusion

In this paper, I have explained my research on collective effervescence in the church setting and how it relates to participation and other demographic factors. I have found, through using a survey, that CE occurs at church. My modified version of Gabriel et al.’s (2019) original TEAMS index was successful in measuring CE. Using multiple regression, I found that CE is experienced stronger by those who participate more in church and who attend church for the purpose of learning about God/faith than for other purposes. Unlike Xylgatas (2015), I did not find community or active participation (volunteering) to affect CE, yet finding attendance to be

important to CE emphasized Liebst's (2019) focus on proximity in the formation of CE. While there are many ways this study could be expanded or improved upon, this research is one of very few that have studied CE in the context of the church and opens a conversation about quotidian religious rituals, events, or occurrences and CE, which is usually related to rare religious or secular rituals or events.

By finding factors associated with CE, CE as a concept can be better understood. Gabriel et al. (2019), Vine (2023), and Corcoran (2019) are some of the few researchers to study CE applied to daily rituals. The definition of the concept becomes more general, encompassing less intense emotions when applied to daily rituals in comparison to those who study rarer events (Xylgatas 2015) (Liebst 2019). The experience of emotions is more subtle, and less noticeable than for example, Liebst's (2019) study of the Roskilde music festival, where people dance and scream out lyrics. My definition of CE reflects this pattern, being more general, and contributing to the existing research of ordinary events. Changing the focus of CE and introducing the concept into daily areas of human interaction opens the door for further study and development of CE as a concept.

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APPENDICES

Appendix A

My survey

- 1) Would you like to take this survey in English or Spanish?

Prefiere tomar esta encuesta en Ingles o Español?

- 2) I am collecting information as part of an undergraduate sociology research thesis. The project is examining emotional experiences at church and church participation. The survey should take about 5 minutes to complete and you must be 18 years old to participate. If there are questions you don't want to answer, feel free to skip them. Your responses will be completely anonymous and only used for the purpose of this research. If you have questions, please write micaela.delcid@colorado.edu. Thank you, Micaela.

This research has been reviewed and approved by an IRB. You may talk to them at (303) 735- 3702 or irbadmin@colorado.edu if: Your questions, concerns, or complaints are not being answered by the research team. You cannot reach the research team. You want to talk to someone besides the research team. You have questions about your rights as a research subject. You want to get information or provide input about this research.

By selecting "Yes," you document your permission to take part in this research project entitled "Emotional Experiences and Church Participation".

- 3) What is your age?
 - a) <18
 - b) 18-24
 - c) 25-34

- d) 35-44
 - e) 45-54
 - f) 55-64
 - g) 65-74
 - h) 75-84
 - i) 85-95
 - j) 95<
- 4) What church do you attend? (open-ended)
- 5) When you attend Church, do you attend in person or online?
- a) Only in person
 - b) Only online
 - c) Mostly in person and sometimes online
 - d) About half of each
 - e) Mostly online and sometimes in-person
- 6) In your own words, why do you attend church? (Optional) (open-ended)
- 7) How often do you...
- a) Attend a regular church service
 - b) Volunteer at church
 - c) Attend bible studies or other regular church-related events
 - d) Attend special church events (retreats, camps, etc.)

Answer Options:

- i. Never
- ii. Christmas and Easter Only

- iii. About once a year
- iv. A few times a year
- v. About once a month
- vi. A few times a month
- vii. Almost every week
- viii. Every week except for emergencies
- ix. Multiple times a week

8) Thinking generally on your experience at church please respond to this question: On a scale of strongly agree to strongly disagree, how do you feel about these statements?

- a) I generally feel connected to others who are present at church.
- b) While at church, I generally feel connected to people who don't attend my church, but who I share a common identity with (for example, other Christians).
- c) I generally feel a connection to all of humanity when I am at church.
- d) I generally feel as if most everyone who attends my church feels the same emotions I do while at church.
- e) I generally feel as if most everyone who attends my church feels a connection to the other people who are at the church at the same time as them.
- f) I generally feel wonder and/or amazement when I am at church.
- g) I generally feel positive emotions when I am at church.
- h) I generally feel negative emotions when I am at church.
- i) I feel like I lose myself in the moment when I attend church.
- j) I feel as if there is something sacred about church when I am there.
- k) I feel as if there is something special about church when I am there.

- l) I feel as if attending church has changed me in some way.
- m) I feel like the people who attend church generally share a purpose during the service (i.e. everyone is there for the same thing).
- n) The people present at church are usually involved in a synchronous activity (i.e. everyone is doing the same thing at the same time, such as applauding, dancing, laughing, praying, cheering, or some other synchronous activity).
- o) I generally feel a connection to the other people who attend my church because we share common beliefs and/or ideas.
- p) Church generally makes me feel closer to the people who attend at the same time as I do.
- q) I generally feel bored when I am at church.

Answer Options:

- r) Strongly disagree
 - s) Disagree
 - t) Somewhat disagree.
 - u) Neither agree nor disagree
 - v) Somewhat agree
 - w) Agree
 - x) Strongly agree
- 9) What is your Gender? (open-ended)
- 10) What is your race/ Ethnicity?
- a) Hispanic/ Latino
 - b) Black/ African American
 - c) Non-Hispanic White

- d) Native American
- e) Asian/Pacific Islander
- f) Other: Please Specify

11) What is your highest level of education?

- a) Less than a High School diploma
- b) High School Diploma/ High School equivalency
- c) Some college
- d) Associate's degree
- e) Bachelor's degree
- f) Master's degree
- g) Professional degree (i.e. MD, JD, MBA)
- h) Doctorate degree.

12) What is your approximate personal yearly income?

- a) \$20,000 or less
- b) \$20,001-50,000
- c) \$50,001-99,999
- d) \$100,000 or more

13) What is your current marital status?

- a) Married
- b) Widowed
- c) Divorced
- d) Separated
- e) Never married

Appendix B

Gabriel et al.'s (2019) original TEAMS index:

1. I felt connected to others who were present at the event.
2. I felt connected to people who weren't at the event, but who I share a common identity with.
3. I felt connected to all of humanity.
4. I felt as if most everyone there felt the same emotions.
5. I felt as if most everyone there felt a connection to the other people who were present.
6. I felt wonder and/or amazement at the event.
7. I felt positive emotions at the event.
8. I felt negative emotions at the event.
9. I felt like I lost myself in the moment at the event.
10. I felt as if there was a greater purpose to the event.
11. I felt as if there was something sacred about the event.
12. I felt as if there was something special about the event.
13. I felt as if the event changed me in some way.
14. I felt like the people there shared a purpose during the event (i.e. everyone was there for the same thing).

15. The people in the event were involved in a synchronous activity at all (i.e. everyone doing the same thing at the same time, such as applauding, dancing, laughing, praying, cheering, or some other synchronous activity).
16. I felt a connection to the other people who were there because we shared beliefs and/or ideas.
17. The event made me feel closer to the people who were there.
18. I felt bored during the event.