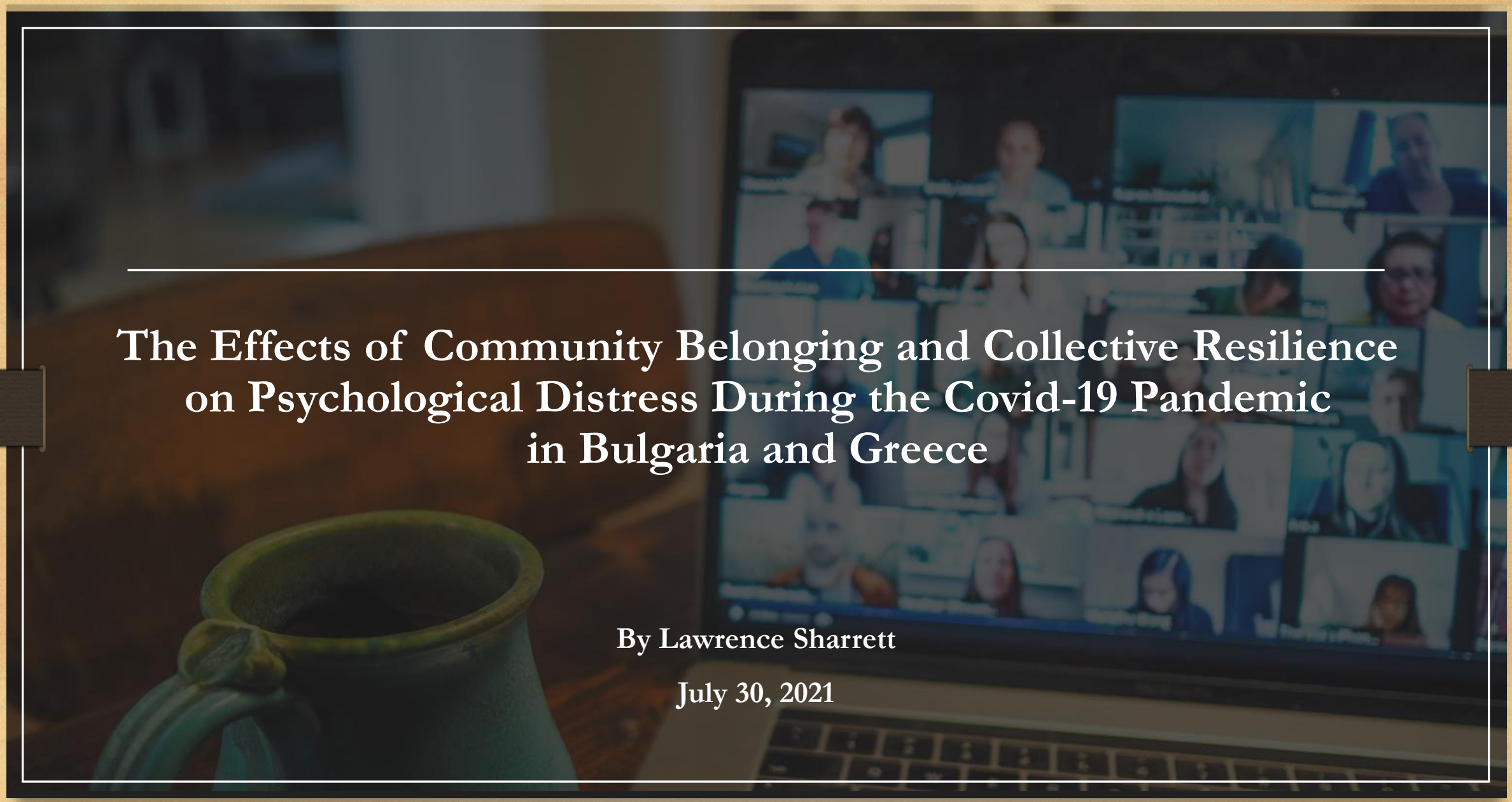

The Effects of Community Belonging and Collective Resilience on Psychological Distress During the Covid-19 Pandemic in Bulgaria and Greece

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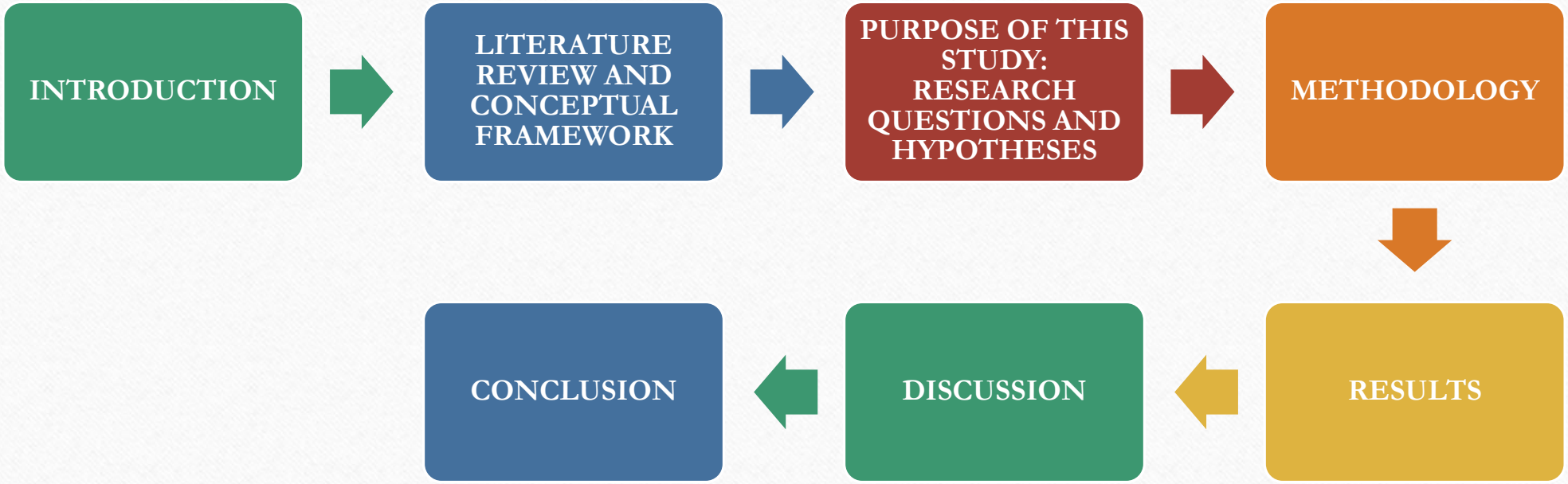
Agenda


INTRODUCTION
LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK
PURPOSE OF THIS STUDY: RESEARCH QUESTIONS AND HYPOTHESES
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INTRODUCTION

- Research confirms that individual resilience consistently predicts lower levels of psychological distress through crises; however, the predictive role of collective resilience on psychological distress during crises is less known.
- **Therefore, this research aimed at collective resilience, but it also aimed to identify specific communities contributing to collective resilience and community belonging in the contexts of the countries of Bulgaria and Greece.**
- This research expected to find that individuals connected well in healthy and resilient communities are expected to have the lowest levels of psychological distress during the pandemic in Bulgaria and Greece.
- One of the biggest differences between Bulgaria and Greece has been the significantly stricter lockdown measures imposed by Greece as compared to Bulgaria. For example, while Greece remained in a six-month lockdown from November 2020 until Easter (May 2, 2021), Bulgaria was in and out of various lockdown measures as early as February, March, and April (e.g. restaurants and gyms, etc. reopening, and then closing again). Outdoor seating at restaurants and face to face learning in schools were happening in Bulgaria during the month of April, 2021 (during data collection). In Greece, the month of April remained closed throughout Greece (e.g. schools online, restaurants remained for takeaway only, required text messages for travel, etc.).

Community Belonging

- Community can be defined as a group of people (triad minimum), *not necessarily in the same geographic location*, collaborating in a network toward a common, collective purpose [on a regular basis]. Communities can range from neighborhood communities, the inner circle of family and friends, faith communities, social activity and support communities, and more.
- Effective collaboration within communities can naturally cultivate a sense of belonging, efficacy, and resilience for individuals within the group and for the group as a whole (Paton et al., 2006). Healthy community connections appear to foster a plethora of positive outcomes for individuals (Audsley, 2018).
- **In a study by Obst et al. (2002), *identification to a community* carried the greatest beta weight for predicting Psychological Sense of Community, which suggests the need for more research on what factors contribute to an individual's feeling of identification with a group or community.**
- Community research findings of Obst et al., (2002), building upon McMillan and Chavis (1986), suggested that the components of identifying with community include:
  - Belonging, Fulfillment of needs, Influence, Shared connections, Conscious identification

Collective Resilience

- Resilience definitions have varied over the years, but the majority relate to adapting through stress with the resources needed to continue despite adverse circumstances: from individual adaptation to community-networked adaptative capacities (Norris et al., 2008).
- Collective resilience is “a group’s ability, through a high level of agency [resources] and adaptability [bouncing back up], to withstand or recover [relatively] quickly from challenging events” (Fletcher et al., 2016, p. 66).
- Agency and adaptability are hallmarks of resilient groups (Berkes & Ross, 2013; Norris et al., 2008).
- Resilience is a quality that can be cultivated through the dynamic contextual and cultural factors that an individual or a community carries into, through, and out of a traumatic event (Luthar et al., 2014).
- Related to the construct of collective resilience, community resilience has been defined as “the community’s ability to withstand crises or disruptions” (Leykin et al., 2013, p.314).

Types of Communities

According to a research study in Australia by Lyons et al., (2016), over 400 participants were given the choice to identify and list the one community that they most connected with, belonged to, and gained resilience from. The categories that particular study shared serve as a foundational trajectory to consider as communities for this research study. The narrowed-down list includes:

- **Family and Friends: Inner Circle**
- **Vocational/Workplace Teams or Colleagues in General**
- **Faith or Spirituality**
- **Support Groups: Parents' Support, Shared interest, Hobbies, etc.**
- **Social Media**

Family or Friends

- A sense of belonging with family or a friendship network so often is considered core for individuals to work through stress, trauma, or crisis (Audsley, 2018).
- The family is the microsystem predictor of an individual's ability to adapt to stress (Ungar, 2012; 2018).
- Over and over again, research points to stable parents, good relationships with caregivers, and the family network in helping a person experience healthy community belonging and resilience (Luthar et al., 2000; Masten, 2001; Masten & Coatsworth, 1998; Werner & Smith, 1992; Wyman et al., 2000).
- Additionally, research suggests that strong connections with neighbors and neighborhood communities, especially in smaller towns or in areas with older populations, are essential for cultivating resilience and well-being (Zhang et al., 2018).
- **The Lyons et al., (2016) study found that 4% of participants reported the town they lived in as their top community for helping them build resilience while a total of 13% reported family (5%) and friends (8%) as their top group.**

Vocational/Workplace Colleagues

- It is common for the strength of the nuclear family relationships to pour over into one's vocational setting. Interestingly, one study about the systemic model of community attachment found that friendships had a "stronger impact on community attachment than family" (Gonzales et al., 2018). In other words, a sense of belonging in the workplace may have a similar impact, if cultivated well, to that of one's own nuclear family.

- Aiming to strengthen work relationships can improve the health of employees and the overall work climate (Persson et al., 2018). For example, an Australian study of 740 ambulance officers showed the correlation (Shakespeare-Finch & Daley, 2017).

- **In the study by Lyons et al. (2016), between a team, group at work, or colleagues in general, 15% of participants responded with this as their top category for community. This suggests the high importance of such communities for resilience and well-being.**

Faith or Spirituality

- Even though the data on this subject is contradictory, it is commonly understood that faith and spirituality is a main coping tool for individuals and for communities (Ali et al., 2012; Stratta et al., 2013; Marks et al., 2009; Wadsworth et al., 2009; Gaillard & Texier, 2010).
- Regarding religion or spirituality as protective factors, some studies have actually found religion and spirituality to be associated with higher post-traumatic stress or other psychological problems (Dein et al., 2020; Shigemoto, 2021) while other studies have found no significant differences (Koenig et al., 2019; Tang et al, 2017).
- In a study by Braun-Lewensohn (2014), individual and collective coping strategies were considered in specific faith groups (Jews, Muslims, and Druze) one year after a crisis showed results supporting that sense of community (SOC) was the strongest predictor for the groups' ability to cope with the stress of the crisis.
- During the first lockdown in Greece, participants identified faith and spirituality as a primary protective factor helping them remain hopeful and relatively healthy through the early stages of the pandemic (Fountoulakis et al., 2021).
- One study from Somali perspectives (Bentley et al., 2020) suggest that Islamic faith is a top priority for Somalis through the collective trauma of the pandemic.
- **In the study by Lyons et al., (2016), 4% of participants chose church groups or faith communities as their top category for community belonging and resilience-building.**

Support Groups

- After family as the foundation social support, Kaniasty and Norris (2000) suggest support groups (e.g. friends, colleagues, etc.) are the next layer of a social support source and that the "type" of social support (e.g. emotional, informational, or tangible) is important for a sense of community.

- Support groups can be considered "shared interest" groups, another key characteristic of the fundamental meaning of sense of community belongingness.

- **In the study by Lyons et al., (2016), between support groups, sports/fitness/walking groups, or service and community-based groups, a total of 21% of participants indicated one of these as their most important group for community resilience. These categories make up the largest percentage of responses from the study done in the Australian context in a non-pandemic time. It is most likely, however, that such groups, because of social distancing, would not continue as freely through the restrictions.**

Social Media

- Within the context of the pandemic, a rapidly contextualized new sense of community has begun online. This is not a new phenomenon, as many folks were already joining Facebook groups of "shared interest" prior to the pandemic (Nadkarni & Hofmann, 2012; Oh et al., 2013) to satisfy a thirst for community in a different way from the normal "need to belong" (Nadkarni & Hofmann, 2012; Ryan et al., 2014); however, the pandemic has brought what was a backseat community opportunity to the front by inviting society to reconsider, for the short-term and possibly for the long-term, how to adapt to a changing sense of community into an increasingly virtual world. Colasante et al. (2020) identify those who see social media as normal community can be considered "digital natives" who find emotional support from online sources.

- There is conflicting evidence on the proposed benefits of social media as community (e.g. debate between what is most effective). And what will the future hold?

- **In the study by Lyons et al. (2016), a category for social media did not even exist. It seems that no significant amount of participants indicated that social media would be an outlet of great community support and resilience for them. It was expected that this will be different with the present study taking place during a pandemic lockdown when online community has been the online option for many.**

Southeastern European Context: Bulgaria and Greece

- The region of Southeastern Europe (i.e. sometimes referred to as the Balkans or Eastern Europe, though Greece is in its own category) is a region with a long history of conflict. In her recently published book, Calic (2019) gives a comprehensive history of Southeastern and suggests the complexities of Southeastern Europe hint at the existing social distrust riddled by centuries of tumultuous times for the people and the lands of this region (e.g. Ottoman era and Communism).
- Of 18 countries surveyed in a Pew Research study on Central and Eastern Europe, Bulgaria and Greece were among the top countries (Bulgaria- 2nd and Greece- 6th) with the least amount of trust for others (Cooperman et al., 2017). This research is relevant because high levels of distrust likely indicate low levels of community belonging and trust.

Psychological Distress in Crises

- Communities across history have faced disasters, violence, terrorism, pandemics, etc. Because excessive trauma at the community level overwhelms systems, it makes it hard for communities, even emergency response teams, to effectively help with the mass needs.

- There are also some specific disorders that are possible through trauma or stress-related events, whether acute or chronic. According to the DSM-V (APA, 2013), some of these include:
  - reactive attachment disorder, disinhibited social engagement disorder, posttraumatic stress disorder (PTSD), acute stress disorder, and adjustment disorders (p. 265).

- Psychological distress, accordingly, can be "quite variable" (e.g. instead of anxiety or fear, it could include anhedonia, dysphoric symptoms, externalizing anger and aggressive symptoms, and dissociative symptoms).
  - The distress of an individual can take on a combination of such responses to catastrophic events.
  - Some responses can be internal (e.g. depressive or withdrawn) and other responses can be external (e.g. disinhibition and externalizing behaviors).

Psychological Distress During the Pandemic

- **Psychological distress has rightly been predicted during the Covid-19 pandemic, especially in the frame of social disconnection (Nitschke et al., 2021; Bzdok & Dunbar, 2020; Snyder-Mackler et al., 2020). Depression, loneliness, somatic symptoms, and other psychological distress have been linked with other times of quarantine (Hawryluck et al., 2004).** While numbers of cases and deaths related to Covid-19 continue to climb globally, so have mental health challenges related to Covid-19. In a recent study by Karaivazoglou et al. (2021), of 1443 individuals who completed a survey, high percentages reported anxiety (20%;), depressive symptoms (12.9%), or post-traumatic stress (36.4%). Related symptoms include loneliness, fear, and frustration (Serafini et al., 2020).

- In related studies (Solomou & Constantinidou, 2020; Wang et al., 2020), women and younger people had higher psychological distress than men and older people. A study of Americans' coping with Covid-19 stress (Park et al., 2020) that found younger age to be linked with high post-traumatic stress symptoms.

Psychological Distress in Greece During the Covid-19 Pandemic

- Fountoulakis, et al., (2021)
  - 7000 participants
  - Aiming at identifying depression; secondary aims were to study the levels of psychological distress (anxiety, suicidal ideation, and other variables related to social and interpersonal data).
  - Results: clinical depression in 9.31% of the participants, 23.31% of participants had experienced a relapse of depression, and 8.96% had experienced depression for the first time. In terms of psychological distress, 8.5% of respondents reported severe distress.
    - Anxiety was reported as having increased with more than 45% of participants.
    - Subclinical anxious or depressive emotions were present in more than 40% of the participants.
- Skapinakis et al., (2020)
  - Results from the 3379 participants indicated that psychological distress was higher for women, for those with financial difficulties, for younger people, students, those in isolation, lower levels of education, and those immersed in the media reports of the pandemic.

Psychological Distress in Greece During the Covid-19 Pandemic

- In Greece, one cross-sectional survey found that one in four participants experienced greater anxiety and depressive symptoms, especially vulnerable were women and those experiencing financial difficulties (Karademas & Thomadakis, 2021; Skapinakis et al., 2020).

- A study that included 1661 participants of the general population in Greece, the first lockdown in Greece impacted certain subgroups more than others, particularly those living alone, female gender, younger adults, the less educated, and healthcare workers (Kalaitzaki, 2021). People in committed relationships experienced lower scores of distress measures. Single people also showed less resilience as compared to those who were in committed relationships. Other previous research has also found that marital status, minorities, and lower socio-economic status also were related to higher distress (Shigemoto, 2020; Boyraz & Legros, 2020).

- In another study (Karaivazoglou et al., 2021), female gender was linked to anxiety symptoms and post-traumatic stress, and educational level was linked to anxiety, depressive, and post-traumatic stress symptoms.

Community Belonging and Collective Resilience Through Psychological Distress

- **Identifying the factors that promote community connection and collective resilience is critically important for combating the psychological distress outcomes of pandemic pressures (e.g. lockdowns, social distancing, etc.) (Vinkers et al., 2020; Shigemoto, 2021).**
- Additional research has pointed toward emotional social support as a common way individuals have sought to cope with the psychological distress of the Covid-19 pandemic (Park et al., 2020). Community resilience has a role in helping people deal with stressful events; however, Covid-19 has some unique challenges (e.g. social media exposure, anticipatory anxiety, and possible causes of distress stemming from quarantine, loneliness, financial issues, etc.) (Horesh & Brown, 2020).
- Community connectedness in the face of collective trauma often follows a pattern (Fullerton et al., 2003). The initial community connection that is created in response to a collective trauma often fades away; however, it does provide a layer of protection to the shared trauma (Breckenridge & James, 2012; Charuvastra & Cloitre, 2008; Hobfoll et al., 2007; Shultz et al., 2016).
- There are significant findings suggesting that family, community, and social networks are the factors that most positively influence lowering levels of psychological distress through trauma (Padgett, 2002; Norris et al., 2004).
- Future research, including this direct study, will do well to suggest long-term systemic interventions for community belonging by emphasizing existing and new social connections as a healthy way to endure the collective traumas faced by individuals (Hobfoll et al., 2007; Norris et al., 2014).

Purpose of this Study

- This particular research study was designed to identify how participants living in the countries of Bulgaria and Greece have experienced community belonging and collective resilience through the Covid-19 pandemic and which communities showed significant effects on psychological distress.

Research Questions

1) ***Does a healthy sense of belonging in one or more communities moderate the psychological distress caused by the Covid-19 pandemic?***
2) ***What is the effect of various communities and community belonging on psychological distress caused by the Covid-19 pandemic?***
3) ***What is the effect of community belonging and collective resilience on psychological distress during the Covid-19 pandemic?***
4) ***How has the shift to a virtual sense of community impacted general sense of community during the Covid-19 pandemic?***

Hypotheses

1) *Collective resilience and community belonging will be significant predictors of psychological distress*
2) *Collective resilience and sense of community with family and friends will be significant predictors for lower psychological distress as compared to other communities*
3) *Collective resilience and sense of community with vocational and workplace teams will be significant predictors for lower psychological distress as compared with other communities*

Methodology

Participants

- This research survey consisted of 274 participants. 176 were living in Bulgaria, and 98 were living in Greece.
- This survey was conducted in the English language, which likely narrowed the pool of people to more educated individuals (e.g. many participants have completed postgraduate work). Therefore, this representation is not a full representation of the respective cultures or countries. Not all participants were actually Bulgarian or Greek, but rather residents in the respective countries.
- Participants were recruited through social media sources

Materials:

- **Psychological Distress:** *Kessler 10 Psychological Distress Scale (10 items)*
- **Collective Resilience:** *Fletcher Lyons Collective Resilience Scale (5 items)*
- **Community Belonging:** *Community Selection (5 options); Brief Sense of Community Scale (8 items)*

Methodology: Scales

Kessler Psychological Distress Scale (K10)

Please tick the answer that is correct for you:	All of the time (score 5)	Most of the time (score 4)	Some of the time (score 3)	A little of the time (score 2)	None of the time (score 1)
1. In the past 4 weeks, about how often did you feel tired out for no good reason?					
2. In the past 4 weeks, about how often did you feel nervous?					
3. In the past 4 weeks, about how often did you feel so nervous that nothing could calm you down?					
4. In the past 4 weeks, about how often did you feel hopeless?					
5. In the past 4 weeks, about how often did you feel restless or fidgety?					
6. In the past 4 weeks, about how often did you feel so restless you could not sit still?					
7. In the past 4 weeks, about how often did you feel depressed?					
8. In the past 4 weeks, about how often did you feel that everything was an effort?					
9. In the past 4 weeks, about how often did you feel so sad that nothing could cheer you up?					
10. In the past 4 weeks, about how often did you feel worthless?					

Please indicate how much you agree that each of the statements below is true of [*insert group name*]. Try to answer as honestly as you can by selecting your response on the scale from 1 "strongly disagree" to 7 "strongly agree".

	Strongly disagree	Disagree	Disagree somewhat	Neutral	Agree somewhat	Agree	Strongly agree
If challenges arise for the group as a whole, we are able to actively respond to those challenges	1	2	3	4	5	6	7
Our group is able to obtain what it needs to thrive	1	2	3	4	5	6	7
Our group bounces back from even the most difficult setbacks	1	2	3	4	5	6	7
Our group is able to achieve things	1	2	3	4	5	6	7
Our group is adaptable	1	2	3	4	5	6	7

Participant Instructions

Below are a set of statements about your neighborhood. Please indicate the extent to which you agree or disagree with these statements by placing a check mark in the appropriate box.

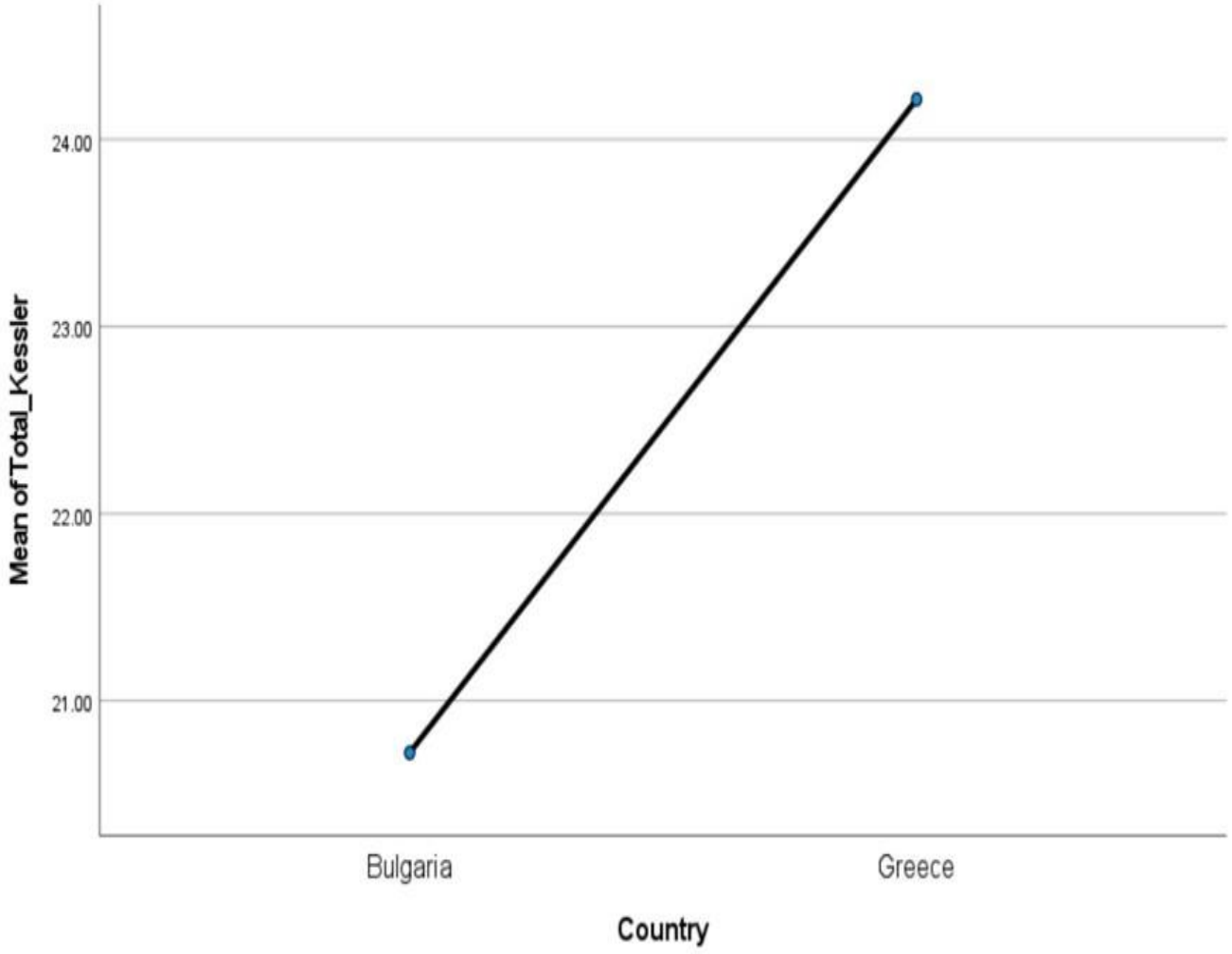
BSCS Items	Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree
1. I can get what I need in this neighborhood.					
2. This neighborhood helps me fulfill my needs.					
3. I feel like a member of this neighborhood.					
4. I belong in this neighborhood.					
5. I have a say about what goes on in my neighborhood.					
6. People in this neighborhood are good at influencing each other.					
7. I feel connected to this neighborhood.					
8. I have a good bond with others in this neighborhood.					

Results

Demographic Significance

Figure 1

Line Graph for Psychological Distress Scores According to Country



Socio-Demographic and Clinical Characteristics of the Sample

		N (%) (*n*=274)	Mean	SD
Total		(274)	21.97	8.03
	Bulgaria	(176)	20.72	7.38
	Greece	(98)	24.21	8.69

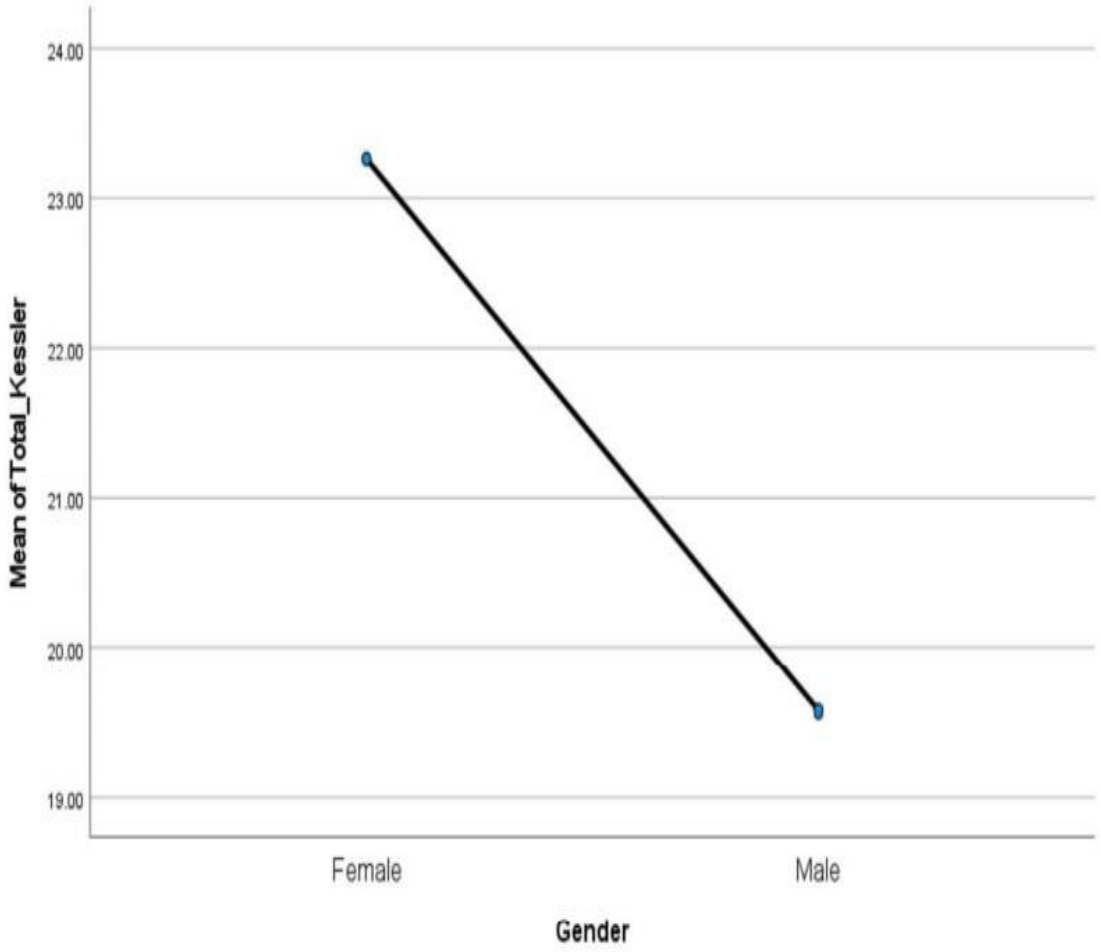
Table 2

One-way Analysis of Variance for Psychological Distress Scores According to Country

Source	*df*	*SS*	*MS*	*F*	*p*
Between Groups	1	767.91	767.91	12.40	<.001
Within Groups	272	16845.86	61.93		
Total	273	17613.77			

Figure 3

Line Graph for Psychological Distress Scores According to Gender



Socio-Demographic and Clinical Characteristics of the Sample

		N (%) (*n*=274)	Mean	SD
Gender				
Males		37.2% (102)	19.57	7.30
	Bulgaria	(78)	18.64	6.75
	Greece	(24)	22.58	8.57
Females		62.4% (171)	23.26	7.96
	Bulgaria	(97)	22.13	7.18
	Greece	(74)	24.74	8.72
Non-binary		0.3% (1)	46.00	
	Bulgaria	(1)	46.00	
	Greece			
Total		(274)	21.97	8.03
	Bulgaria	(176)	20.72	7.38
	Greece	(98)	24.21	8.69

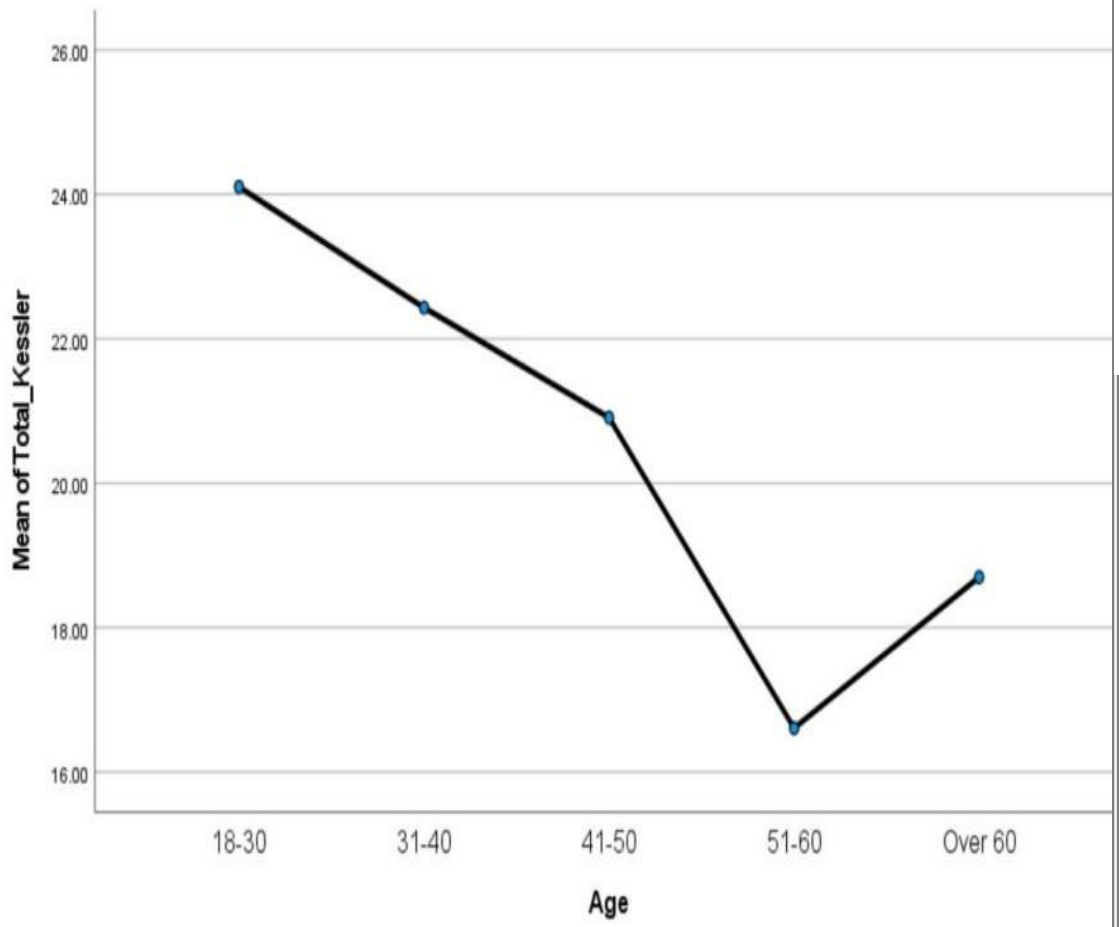
Table 4

One-way Analysis of Variance for Psychological Distress Scores According to Gender

Source	*df*	*SS*	*MS*	*F*	*p*
Between Groups	1	872.07	872.07	14.62	<.001
Within Groups	271	16162.18	59.64		
Total	272	17034.25			

Figure 2

Line Graph for Psychological Distress Scores According to Age



Socio-Demographic and Clinical Characteristics of the Sample

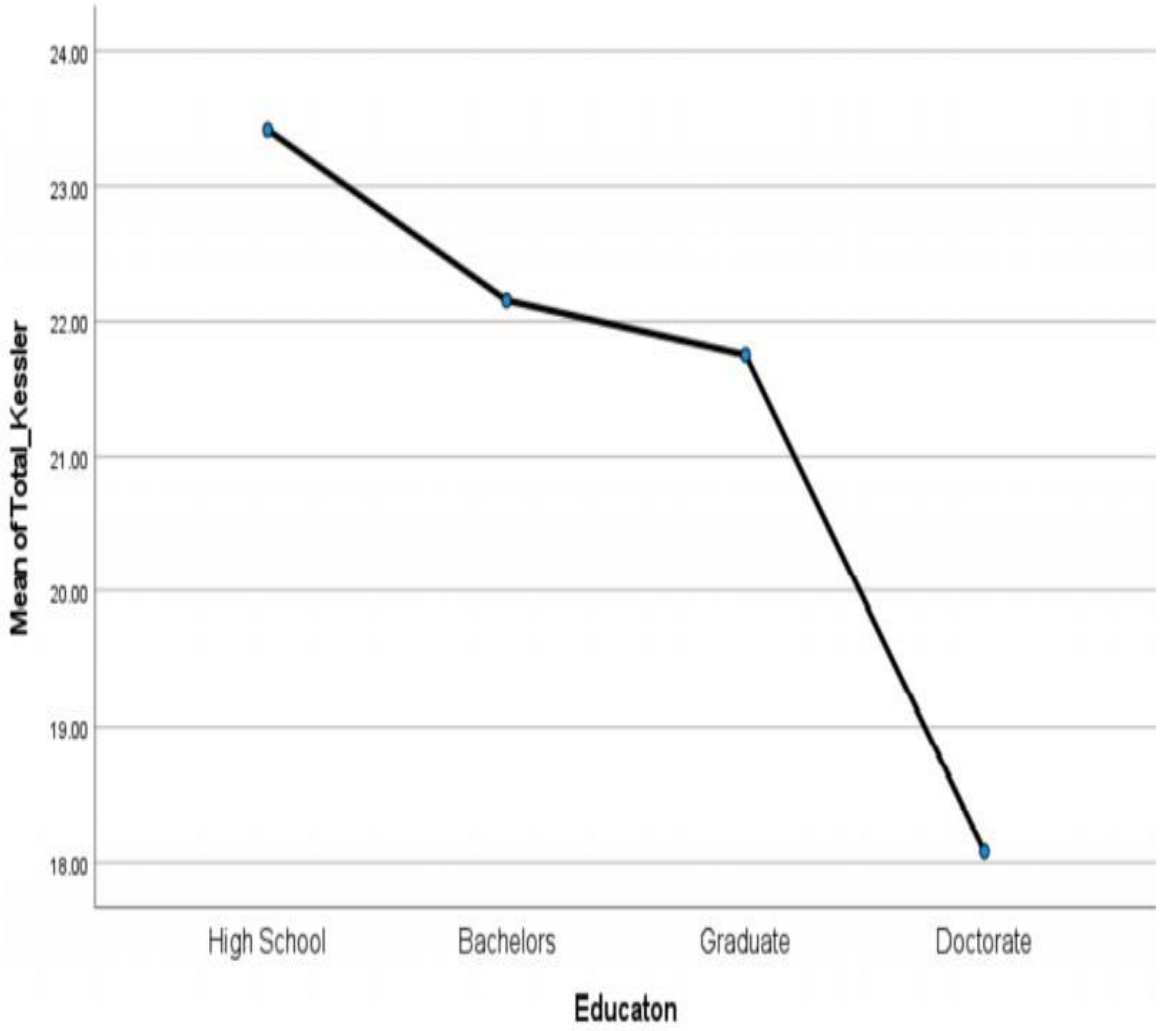
		N (%) (*n*=274)	Mean	SD
Age (years)				
18-30		31.7% (87)	21.96	8.13
	Bulgaria	(55)	21.96	7.60
	Greece	(32)	27.78	7.78
31-40		32.1% (88)	22.43	8.28
	Bulgaria	(58)	20.16	7.16
	Greece	(30)	26.83	8.63
41-50		24%% (66)	20.91	6.56
	Bulgaria	(40)	21.78	6.68
	Greece	(26)	19.58	6.26
51-60		8.3% (23)	16.61	7.70
	Bulgaria	(17)	17.18	8.55
	Greece	(6)	15.00	4.77
Over 60		3.6% (10)	18.70	8.23
	Bulgaria	(6)	17.83	5.64
	Greece	(4)	20.00	12.11

One-way Analysis of Variance for Psychological Distress Scores According to Age

Source	*df*	*SS*	*MS*	*F*	*p*
Between Groups	4	1257.07	314.27	5.17	<.001
Within Groups	269	16356.69	60.81		
Total	273	17613.77			

Figure 5

Line Graph for Psychological Distress Scores According to Education Level

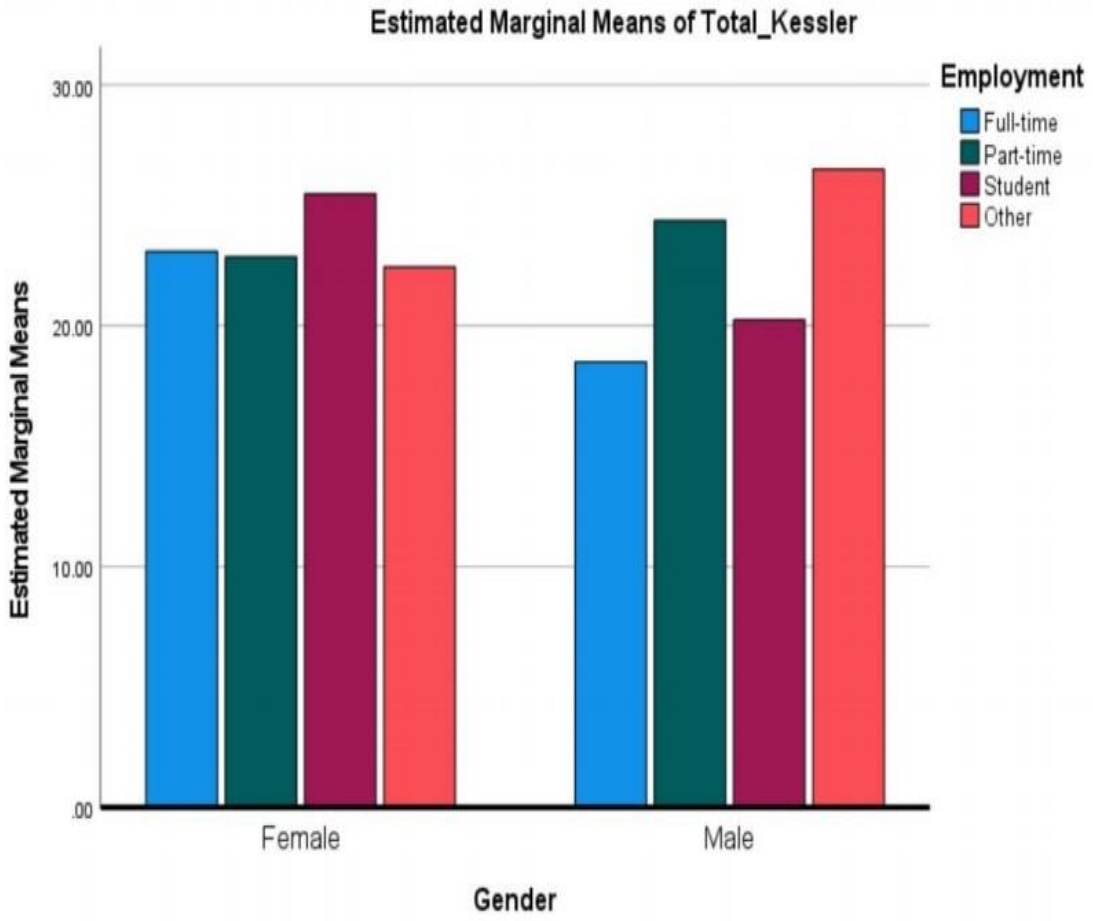


Socio-Demographic and Clinical Characteristics of the Sample

		N (%) (*n*=274)	Mean	SD
Education (highest degree earned)				
High school		13.1% (36)	23.42	9.55
	Bulgaria	(25)	22.08	9.35
	Greece	(11)	26.45	9.73
Bachelors		39.7% (109)	22.16	7.63
	Bulgaria	(71)	21.69	7.36
	Greece	(38)	23.03	8.15
Graduate		42.7% (117)	21.75	7.83
	Bulgaria	(75)	19.59	6.57
	Greece	(42)	25.62	8.45
Doctorate		4.4% (12)	18.08	8.31
	Bulgaria	(5)	17.20	6.38
	Greece	(7)	18.71	9.91

Figure 6

Bar Graph for Psychological Distress Scores According to Employment and Gender



Socio-Demographic and Clinical Characteristics of the Sample

		N (%) (*n*=274)	Mean	SD
Employment				
Full-time		68.6% (188)	21.14	9.97
	Bulgaria	(129)	19.65	6.77
	Greece	(59)	24.39	9.39
Part-time		8.4% (23)	23.39	7.25
	Bulgaria	(71)	25.00	7.78
	Greece	(38)	21.92	6.72
Student		11% (30)	24.77	7.88
	Bulgaria	(16)	24.31	8.55
	Greece	(14)	25.29	7.33
Other		12% (33)	23.18	8.51
	Bulgaria	(20)	22.40	8.43
	Greece	(13)	24.38	8.83

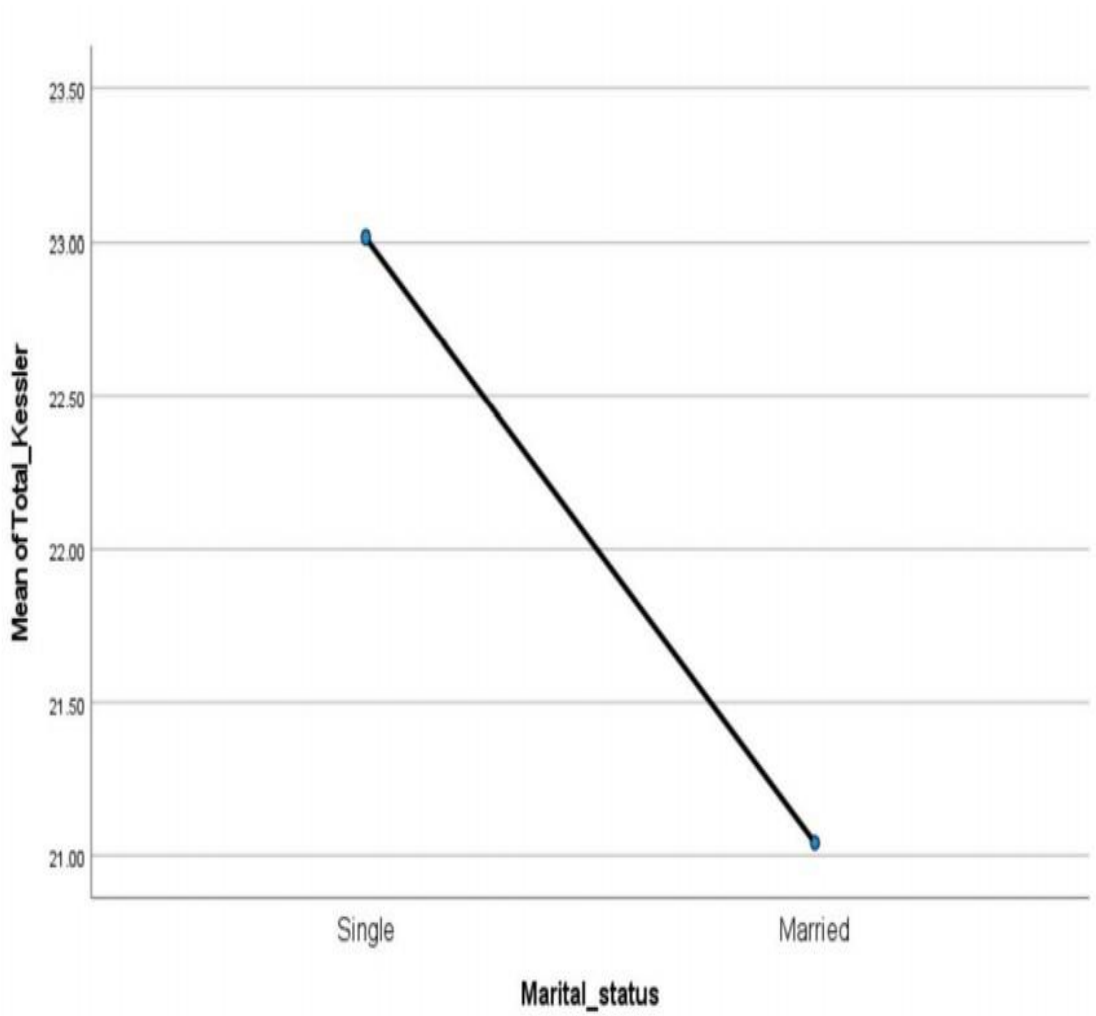
Table 5

Two-Way Analysis of Variance Exploring the Effect of Employment and Gender on Psychological Distress

Source	*Df*	*F*	η^2	*p*
Gender	1	.526	.002	.469
Employment	3	2.29	.025	.079
Gender*Employment	3	2.76	.030	.043
Error	265			

Figure 7

Line Graph for Psychological Distress Scores According to Marital Status



Socio-Demographic and Clinical Characteristics of the Sample

	N (%) (*n*=274)	Mean	SD
Marital Status			
Single	47.1% (129)	23.02	7.69
Bulgaria	(76)	21.55	7.47
Greece	(53)	25.11	7.58
Married	53% (145)	21.04	8.24
Bulgaria	(100)	20.09	7.28
Greece	(45)	23.16	9.82
Living Status			
Living Alone	19.7% (54)	21.69	7.82
Bulgaria	(32)	19.31	6.77
Greece	(22)	25.14	8.11
Living with partner	23.7% (65)	22.68	9.01
Bulgaria	(39)	20.21	6.67
Greece	(26)	26.38	8.54
Living with partner/children	40.5% (111)	20.86	7.89
Bulgaria	(79)	20.60	7.47
Greece	(32)	24.78	8.94
Other	16.1% (44)	24.09	8.41
Bulgaria	(26)	23.62	8.41
Greece	(18)	24.78	8.62
Number of Children			
0 children	48.5% (133)	23.56	8.10
Bulgaria	(78)	21.24	7.54
Greece	(55)	26.85	7.77
1 child	16.8% (46)	19.28	7.27
Bulgaria	(34)	19.35	6.72
Greece	(12)	19.08	8.98
2 children	25.6% (70)	20.96	7.65
Bulgaria	(46)	20.65	7.56
Greece	(24)	21.54	7.95
3 children	6.6% (18)	20.78	7.87
Bulgaria	(11)	20.36	5.01
Greece	(7)	21.43	11.53
More than 3 children	2.6% (7)	22.57	10.91
Bulgaria	(7)	22.57	10.91
Greece			

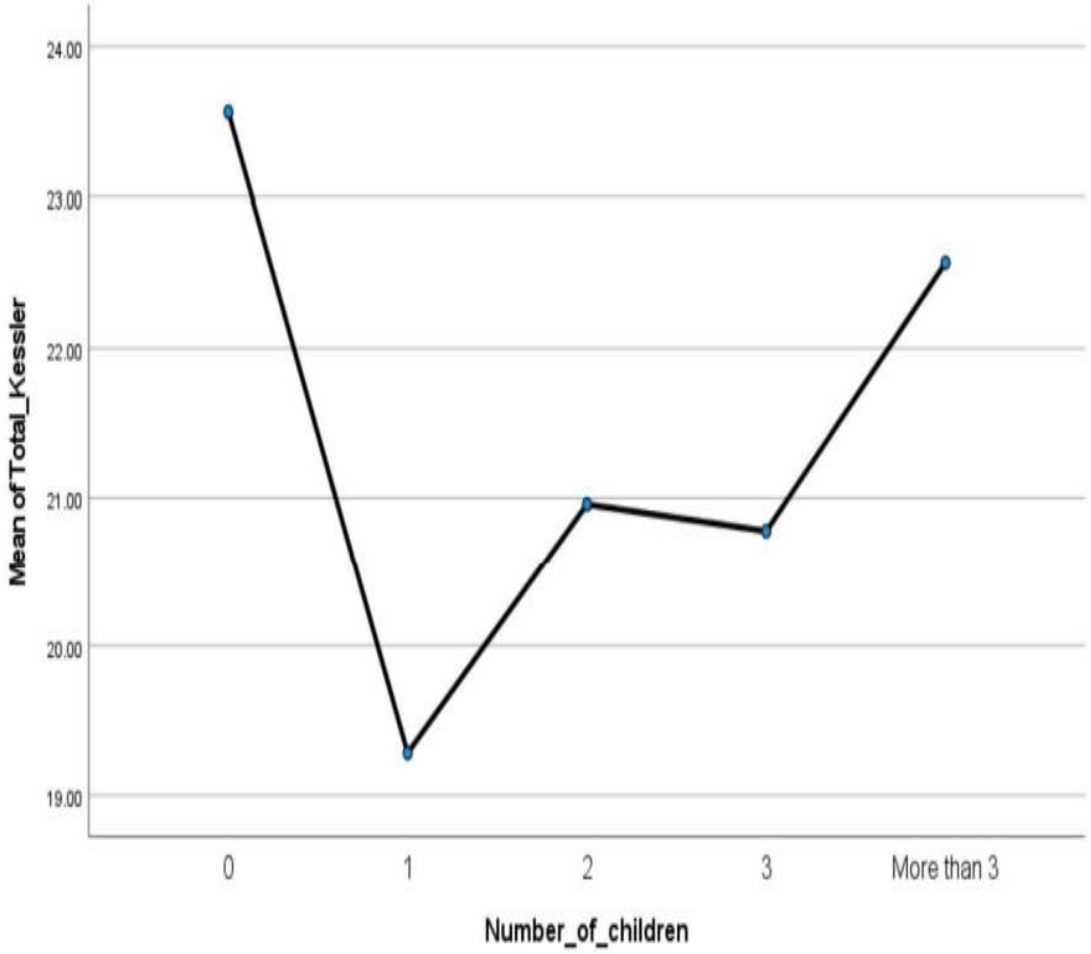
Table 6

One-way Analysis of Variance for Psychological Distress Scores According to Martial Status

Source	*df*	*SS*	*MS*	*F*	*p*
Between Groups	1	266.05	266.046	4.171	.042
Within Groups	272	17347.72	63.78		
Total	273	17613.77			

Figure 8

Line Graph for Psychological Distress Scores According to Number of Children



Socio-Demographic and Clinical Characteristics of the Sample

		N (%) (*n*=274)	Mean	SD
Marital Status				
Single		47.1% (129)	23.02	7.69
	Bulgaria	(76)	21.55	7.47
	Greece	(53)	25.11	7.58
Married		53% (145)	21.04	8.24
	Bulgaria	(100)	20.09	7.28
	Greece	(45)	23.16	9.82
Living Status				
Living Alone		19.7% (54)	21.69	7.82
	Bulgaria	(32)	19.31	6.77
	Greece	(22)	25.14	8.11
Living with partner		23.7% (65)	22.68	9.01
	Bulgaria	(39)	20.21	6.67
	Greece	(26)	26.38	8.54
Living with partner/children		40.5% (111)	20.86	7.89
	Bulgaria	(79)	20.60	7.47
	Greece	(32)	24.78	8.94
Other		16.1% (44)	24.09	8.41
	Bulgaria	(26)	23.62	8.41
	Greece	(18)	24.78	8.62
Number of Children				
0 children		48.5% (133)	23.56	8.10
	Bulgaria	(78)	21.24	7.54
	Greece	(55)	26.85	7.77
1 child		16.8% (46)	19.28	7.27
	Bulgaria	(34)	19.35	6.72
	Greece	(12)	19.08	8.98
2 children		25.6% (70)	20.96	7.65
	Bulgaria	(46)	20.65	7.56
	Greece	(24)	21.54	7.95
3 children		6.6% (18)	20.78	7.87
	Bulgaria	(11)	20.36	5.01
	Greece	(7)	21.43	11.53
More than 3 children		2.6% (7)	22.57	10.91
	Bulgaria	(7)	22.57	10.91

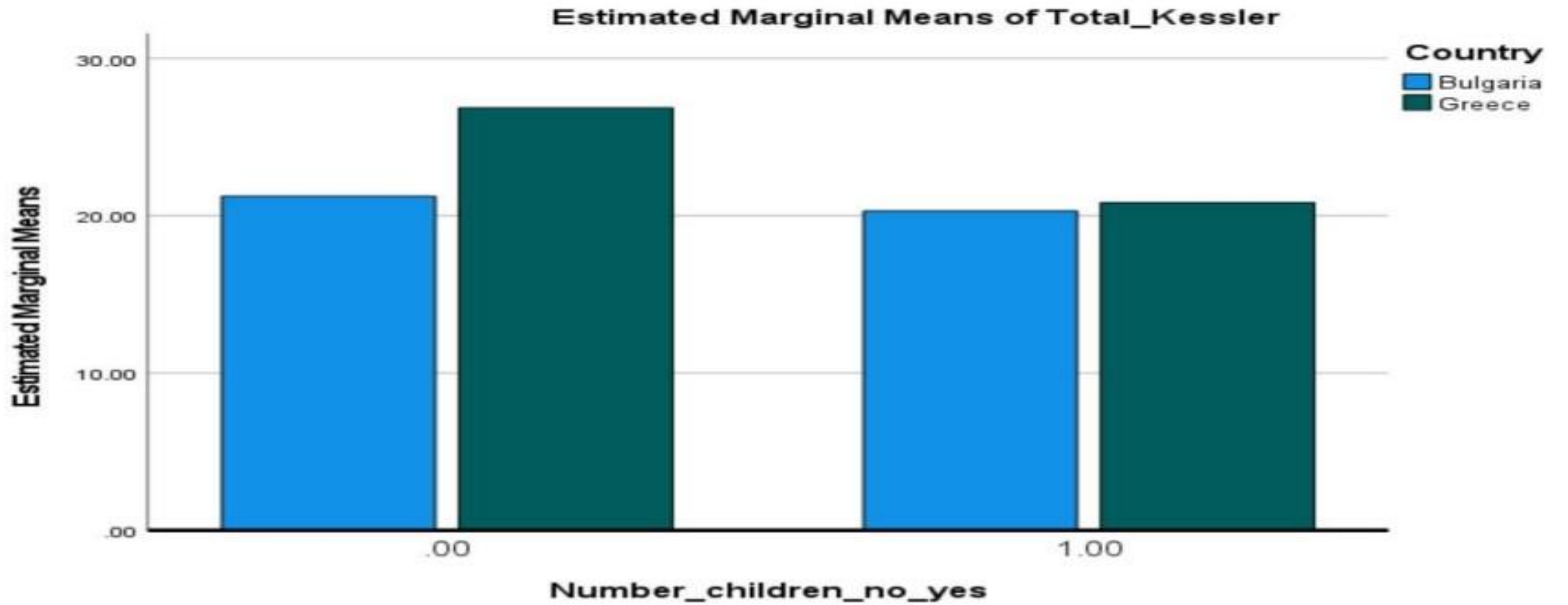
Table 7

One-way Analysis of Variance for Psychological Distress Scores According to Number of Children

Source	*df*	*SS*	*MS*	*F*	*p*
Between Groups	4	770.04	191.509	3.074	.017
Within Groups	269	16843.73	62.62		
Total	273	17613.77			

Figure 9

Bar Graph for Psychological Distress Scores According to Number of Children and Country



Community Belonging and Collective Resilience

Table 11

Community Belonging and Collective Resilience Means for the Communities

	Number	Mean	SD
Community Belonging			
Community 1	257	34.65	5.39
Community 2	215	31.83	6.21
Community 3	137	29.67	7.07
Collective Resilience			
Community 1	257	28.07	4.89
Community 2	215	26.80	5.54
Community 3	137	23.67	5.82

Table 21

Community Belonging and Collective Resilience from Community 1, 2, and 3 Selections in Predicting Psychological Distress With the Application of Standard Multiple Regression

	t	*p*	*β*	*F*	*df*	R^2
Overall model		.051		2.16	6	.091
C1 Com belonging	-1.22	.226	-.136			
C1 Col resilience	-1.05	.294	-.120			
C2 Com belonging	-.699	.486	-.092			
C2 Col resilience	.416	.678	-.055			
C3 Com belonging	-.929	.355	-.135			
C3 Col resilience	.274	.784	-.041			

Note: N=257, dependent variable: Psychological distress

Community Belonging and Collective Resilience

Table 12

Correlations Among Study Variables for Community 1 Selections (n=257)

	Distress	Com. Belonging	Col. Resilience
Distress	-	-.253**	-.235**
Com. Belonging	-.253**	-	.638**
Col. Resilience	-.235**	.638**	-

* $p < .05$. ** $p < .01$.

Table 13

Community Belonging and Collective Resilience from Community 1 Selections in Predicting Psychological Distress With the Application of Standard Multiple Regression

	t	*p*	*β*	*F*	*df*	R^2
Overall model		<.001		9.99	1	.066
Community belonging	-2.21	.028	-.173			
Collective resilience	-1.58	.115	-.124			

Note: N=257, dependent variable: Psychological distress

Community 1 Selections

Figure 11

Line Graph for Psychological Distress Scores According to Community 1 Selections

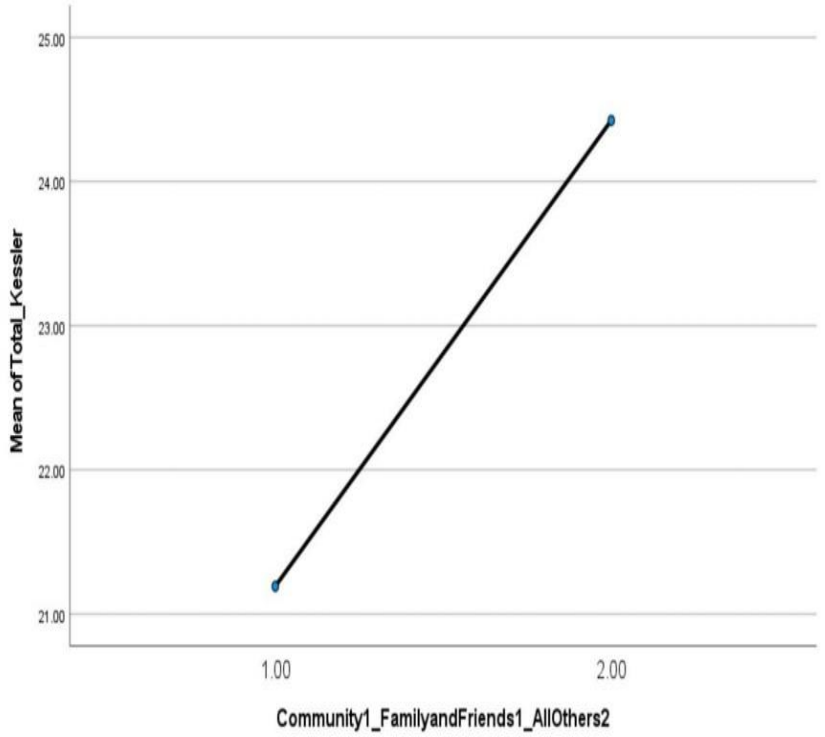


Table 9

Community 1 Selections of Participants and Means of Psychological Distress

	N (%) (*n*=274)	Mean	SD
Community 1 Selection			
Family or Friends	76% (208)	21.97	8.03
Bulgaria	(131)	20.12	6.97
Greece	(77)	23.03	7.83
Vocational/Workplace	3.6% (10)	25.20	6.61
Bulgaria	(7)	25.29	7.76
Greece	(3)	25.00	4.00
Faith or Spirituality	12.4% (34)	22.56	10.05
Bulgaria	(23)	19.96	7.38
Greece	(11)	28.00	12.87
Support Groups	1.1% (3)	33.67	10.79
Bulgaria	(3)	33.67	10.79
Greece			
Social Media	<1% (2)	26.50	7.78
Bulgaria	(1)	21.00	
Greece	(1)	32.00	
None	6.2% (17)	25.82	8.85
Bulgaria	(11)	23.00	7.94
Greece	(6)	31.00	8.65
Total	(274)	21.97	8.03
Bulgaria		20.72	7.38
Greece		24.21	8.69

Table 10

One-way Analysis of Variance for Psychological Distress Scores According to Community 1 Selections (Family And Friends or All Others)

Source	*df*	*SS*	*MS*	*F*	*p*
Between Groups	1	523.34	523.39	8.33	.004
Within Groups	272	17090.43	62.83		
Total	273	17613.77			

Bulgaria and Greece Community 1

Table 14

Community Belonging and Collective Resilience from Community 1 Selections for Participants in Bulgaria in Predicting Psychological Distress With the Application of Standard Multiple Regression

	t	*p*	*β*	*F*	*df*	R^2
Overall model		.055		2.96	2	.035
Community belonging	-.903	.368	-.089			
Collective resilience	-1.22	.224	-.120			

Note: N=165, dependent variable: Psychological distress

Table 15

Correlations Among Study Variables for Community 1 Selections for Bulgaria Residents (n=165)

	Distress	Com. Belonging	Col. Resilience
Distress	-	-.162*	-.174*
Com. Belonging	-.162*	-	.617**
Col. Resilience	-.174*	.617**	-

* $p < .05$. ** $p < .01$.

Table 16

Community Belonging and Collective Resilience from Community 1 Selections for Participants in Greece in Predicting Psychological Distress With the Application of Standard Multiple Regression

	t	*p*	*β*	*F*	*df*	R^2
Overall model		<.001		9.05	2	.169
Community belonging	-2.86	.005	-.383			
Collective resilience	-.300	.775	-.040			

Note: N=92, dependent variable: Psychological distress

Table 17

Correlations Among Study Variables for Community 1 Selections for Greece Residents (n=92)

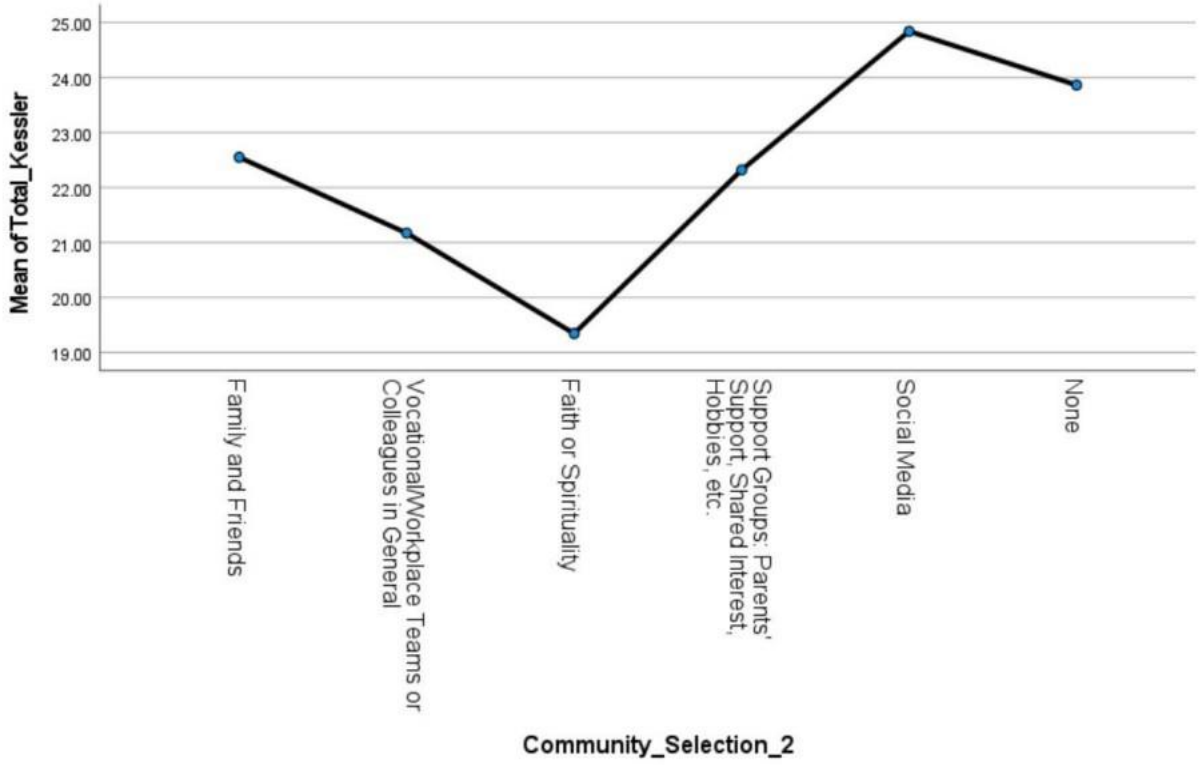
	Distress	Com. Belonging	Col. Resilience
Distress	-	-.410**	-.303*
Com. Belonging	-.410**	-	.688**
Col. Resilience	-.303*	.688**	-

* $p < .05$. ** $p < .01$.

Community 2 Selections

Figure 12

Line Graph for Psychological Distress Scores According to Community 2 Selections



Community 2 Selections of Participants and Means of Psychological Distress

	N (%) (*n*=274)	Mean	SD
Community 2 Selection			
Family or Friends	17.9% (49)	22.55	9.83
Bulgaria	(35)	21.37	8.51
Greece	(14)	25.50	12.41
Vocational/Workplace	23.4% (64)	21.17	7.02
Bulgaria	(42)	19.60	6.18
Greece	(22)	24.18	7.68
Faith or Spirituality	21.2% (58)	19.34	6.88
Bulgaria	(36)	18.67	6.80
Greece	(22)	20.45	7.03
Support Groups	9.1% (25)	22.32	8.44
Bulgaria	(21)	22.24	8.88
Greece	(4)	22.75	6.65
Social Media	7% (19)	24.84	6.72
Bulgaria	(10)	23.70	5.60
Greece	(9)	26.11	7.93
None	21.5% (59)	23.86	8.11
Bulgaria	(32)	21.88	7.21
Greece	(27)	26.22	8.61
Total	(274)	21.97	8.03
Bulgaria		20.72	7.38
Greece		24.21	8.69

Table 19

One-way Analysis of Variance for Psychological Distress Scores According to Community 2 Selections

Source	*df*	*SS*	*MS*	*F*	*p*
Between Groups	5	828.55	165.71	2.65	.024
Within Groups	268	16785.22	62.63		
Total	273	17613.77			

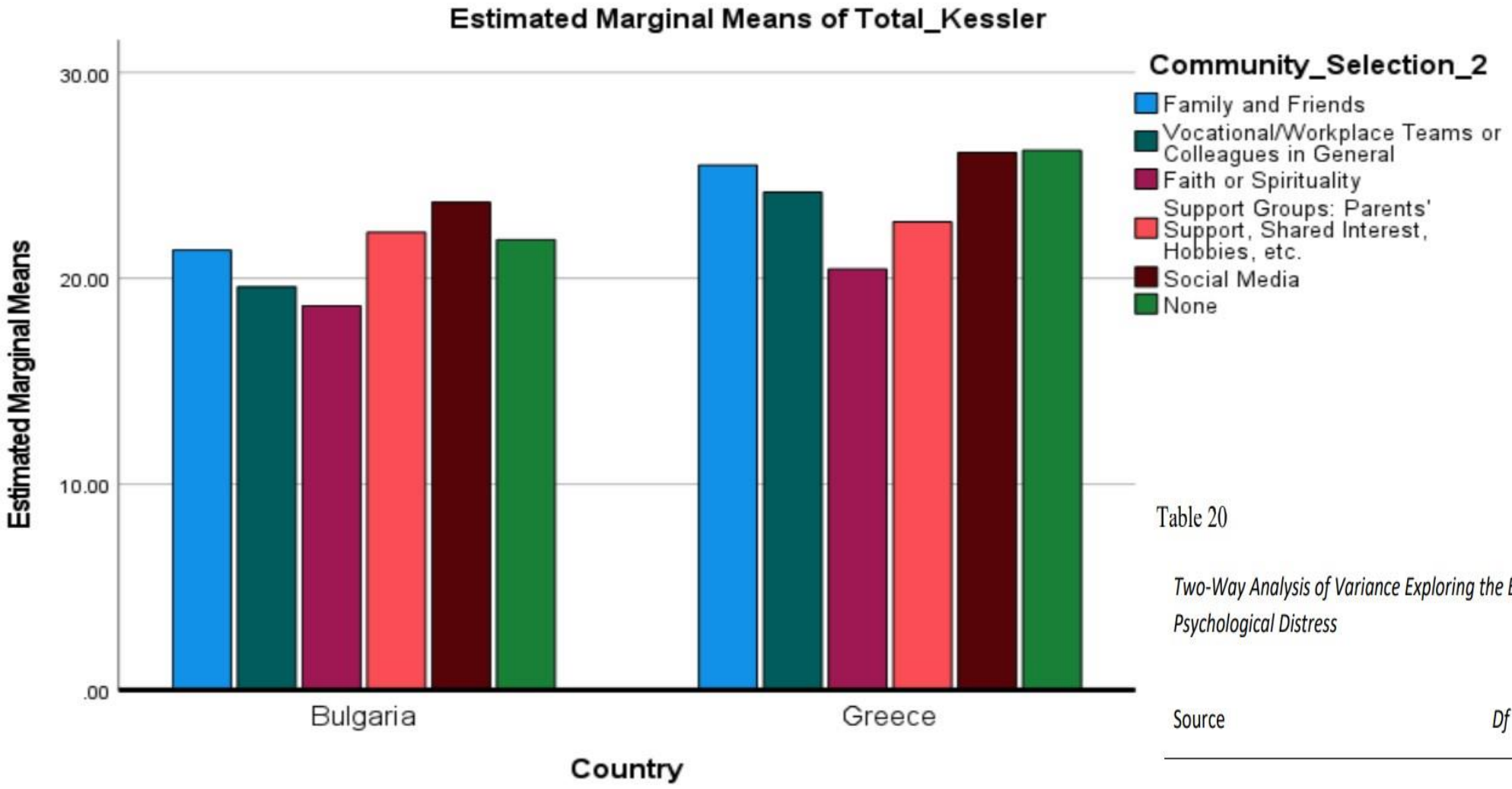


Table 20

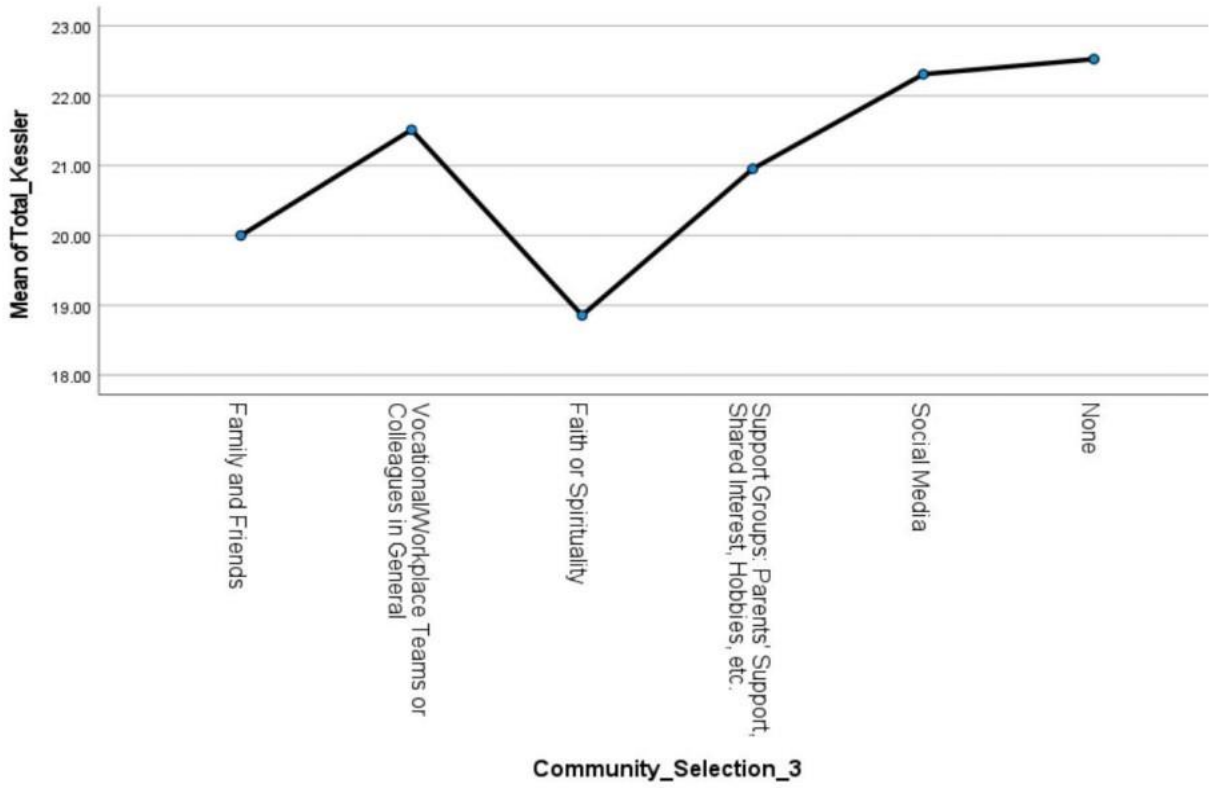
Two-Way Analysis of Variance Exploring the Effect of Country and Community 2 Selection on Psychological Distress

Source	*Df*	*F*	η^2	*p*
Country	1	6.33	.024	<.012
Community_2_selection	5	2.55	.046	.028
Country*Community_2_selection	5	.351	.007	.881
Error	262			

Community 3 Selections

Figure 14

Line Graph for Psychological Distress Scores According to Community 3 Selections



Community 3 Selections of Participants and Means of Psychological Distress

	N (%) (*n*=274)	Mean	SD
Community 3 Selection			
Family or Friends	4.3% (12)	20.00	7,27
Bulgaria	(9)	20.55	7.63
Greece	(3)	18.33	7,23
Vocational/Workplace	15% (41)	21.51	8.55
Bulgaria	(25)	21.92	9.22
Greece	(16)	20.88	7.62
Faith or Spirituality	5.1% (14)	18.86	6.21
Bulgaria	(13)	18.77	6.46
Greece	(1)	20.00	
Support Groups	16% (44)	20.95	6.69
Bulgaria	(32)	19.40	5.64
Greece	(12)	25.08	7.74
Social Media	9.4% (26)	22.31	8.04
Bulgaria	(18)	21.22	7.30
Greece	(8)	24.75	9.59
None	(137)	22.86	8.45
Bulgaria	(79)	21.10	7.57
Greece	(58)	25.26	9.05
Total	(274)	21.97	8.03
Bulgaria		20.72	7.38
Greece		24.21	8.69

One-way Analysis of Variance for Psychological Distress Scores According to Community 3 Selections

Source	*df*	*SS*	*MS*	*F*	*p*
Between Groups	5	253.31	50.66	.784	.562
Within Groups	234	15117.10	64.60		
Total	239	15370.40			

Mode of Meetings: Online, In-person, or Hybrid?

Table 24

Mode of Meetings for Community 1, 2, and 3 Selections of Participants and Means of Psychological Distress

		N	Mean	SD
Community 1 Mode of Meetings				
Online		(42)	21.88	8.30
	Bulgaria	(23)	18.91	5.13
	Greece	(19)	25.47	10.00
In-person		(87)	21.34	8.33
	Bulgaria	(59)	20.61	8.43
	Greece	(28)	22.89	8.06
Hybrid		(128)	21.91	7.57
	Bulgaria	(83)	21.00	7.03
	Greece	(45)	23.60	8.29
Total		(257)	21.72	7.93
	Bulgaria	(165)	20.57	7.34
	Greece	(92)	23.77	8.55
Community 2 Mode of Meetings				
Online		(77)	21.96	7.45
	Bulgaria	(46)	21.54	7.08
	Greece	(31)	22.58	8.04
In-person		(53)	22.70	9.34
	Bulgaria	(39)	21.03	8.29
	Greece	(14)	27.36	10.78
Hybrid		(85)	20.21	7.36
	Bulgaria	(59)	19.25	7.00
	Greece	(26)	22.38	7.82
Total		(215)	21.45	7.95
	Bulgaria	(144)	20.47	7.41
	Greece	(26)	23.45	8.66
Community 3 Mode of Meetings				
Online		(49)	21.73	7.85
	Bulgaria	(29)	19.69	6.76
	Greece	(20)	24.70	8.52
In-person		(34)	20.03	7.74
	Bulgaria	(30)	20.53	7.90
	Greece	(4)	16.25	5.85
Hybrid		(54)	21.15	7.12
	Bulgaria	(38)	20.87	7.21
	Greece	(16)	21.81	7.01
Total		(137)	21.08	7.52
	Bulgaria	(97)	20.41	7.24
	Greece	(40)	22.70	8.00

Number of Communities

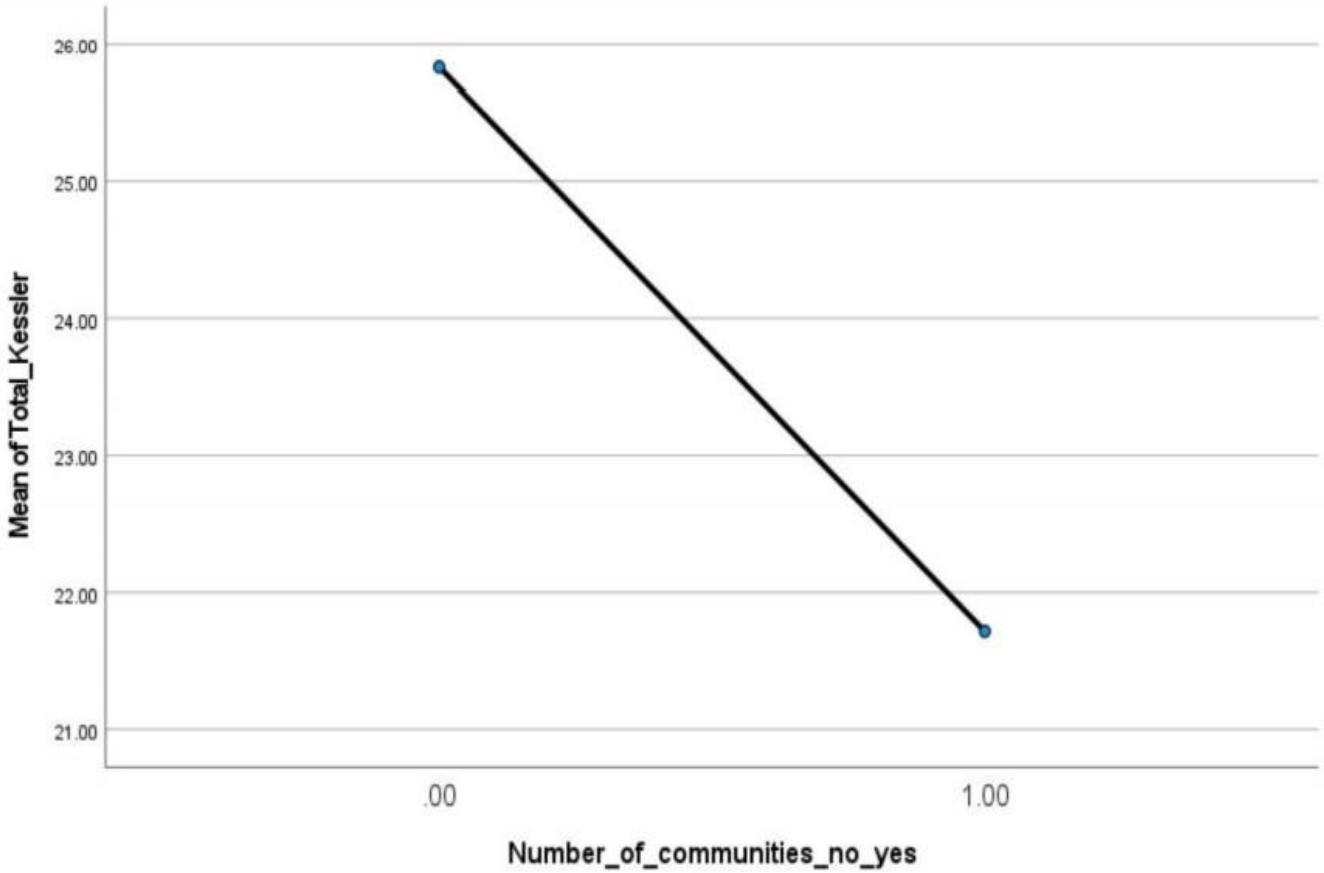
Table 8

One-way Analysis of Variance for Psychological Distress Scores According to Number of Communities

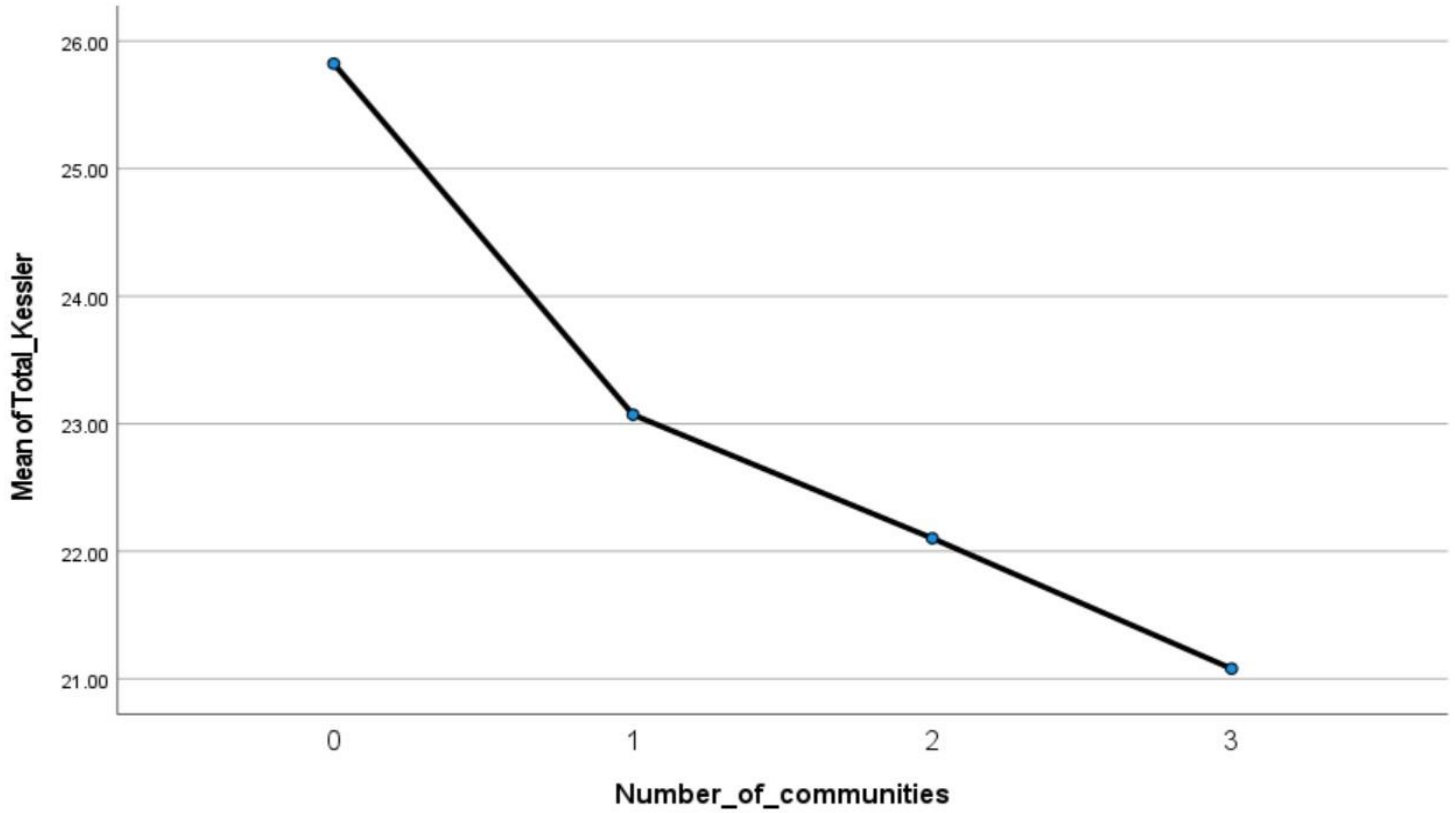
Source	*df*	*SS*	*MS*	*F*	*p*
Between Groups	1	269.03	269.031	4.22	.041
Within Groups	272	17344.74	63.77		
Total	273	17613.77			

Figure 10

Line Graph for Psychological Distress Scores According to Number of Communities



Number of Communities



Total_Kessler * Number_of_communities

Total_Kessler

Number_of_communities	Mean	N	Std. Deviation
0	25.8235	17	8.84757
1	23.0714	42	7.76921
2	22.1026	78	8.67238
3	21.0803	137	7.51573
Total	21.9708	274	8.03239

Discussion

- Community belonging as foundational through psychological distress? Is there are a synonymity of community belonging and collective resilience: community resilience?
- Number of communities
- Effects of community belonging and collective resilience in Bulgaria and Greece
- Additional demographic significance
- Transitional mode of meetings
- Limitations
- Suggestions for future research
- Application ideas for people-helping professionals

Community belonging as foundational through psychological distress?

- The strong positive correlations of the community belonging and collective resilience variables, one might even find grounds for suggesting the two constructs as nearly synonymous.
  - Nonetheless, collective resilience did not prove to be as significant in this study as community belonging. Other approaches of categorizing the variables (e.g. binary yes/no variables in terms of collective resilience and community belonging) could potentially yield a slightly different picture and possibly show more of the synonymity of the respective constructs.
- As observed in the results, both collective resilience and community belonging had a small-medium negative correlation on psychological distress for Community 1, and together, they explained only 6.6% of the variance in psychological distress, much lower than expected.
- Might community belonging be the foundation upon which collective resilience can build?

Number of communities

- Research suggests the number of social connections a person engages in can positively influence how one copes with distress (Nitschke et al., 2021; Cohen et al., 1997; Snyder-Mackler et al., 2020; Eisenberger & Cole, 2012; Helgeson & Cohen, 1996; Holt-Lunstad, 2018; Finch et al., 1999; St. Jean-Trudel & Guay, 2009).

- Categories of social relationships or communities can range from closer relationships (e.g. family or friends) to distant, or less-connected, relationships (e.g. friends, colleagues, religious, etc.), and higher numbers of social relationships decreased levels of stress, worry (including Covid-19 context worries), and fatigue (Nitschke et al., 2021).

- This present study showed that the number of communities a participant belonged to significantly lowered psychological distress.

Effects of community belonging and collective resilience in Bulgaria and Greece

- Mean psychological distress scores across the 274 participants of this study (M=21.97) indicated the likelihood of mild psychological distress.
  - The significant main effect (p=<.001) between Bulgaria's lower-mild distress (M= 20.72; SD=7.38) as compared to Greece's higher-mild distress (M= 24.21; SD= 8.69) is likely related to the nature and length of the imposed restrictions by the respective national governments for residents within its borders (for more, see subsequent discussion).
- Similar to the present study in which data was gathered at the end of the lockdown (especially for Greece), the study in Austria included 902 participants who were assessed at the end of a six-week lockdown. Results from that study indicated that higher amounts of social connections (e.g. more diverse and with more individuals) were negatively related to stress, worry, and fatigue (Nitschke et al., 2021).
- Results from this present study in Bulgaria and Greece indicated that higher amounts of community connections were negatively related to psychological distress.

Effects of community belonging and collective resilience in Bulgaria and Greece

- Bulgaria and Greece, as countries with long history, are cultures situated somewhere within an ebb and flow of collectivistic and individualistic ways of relating to others.
- While both Bulgaria and Greece have been considered collectivistic cultures that carry a strong sense of national pride and commitment to family, it appears that the participants living in Greece and choosing Family and Friends for their top community experienced the most significant impact of community belonging. This is also supported by the demographic analyses when isolating Bulgaria and Greece in terms of those participants with children compared to those participants without children. In Bulgaria, for example, there was not a significant difference for participants with children, whereas in Greece, there was a significant difference on lower psychological distress for participants with children.
- **Through a systemic approach, Walsh (2020) proposes the importance of the collective in order to overcome adversity. In cultures increasingly becoming more individualistic, self-reliance is an expectation while community-connection can be seen as vulnerability, weakness, shameful, and deficient. A certain level of distress is actually expected in such times as an uncertain pandemic. So is, argues Walsh, interdependence on others, something that cultivates resilience.**

Effects of community belonging and collective resilience in Bulgaria and Greece

- Being a collectivistic culture that values family and marriage (Papastylianou & Lampridis, 2016), Greece would be expected to turn to family as their top community helping them gain a source of strength through the distress of the pandemic.
- The lockdown differences are likely the main reason for the significant psychological distress scores between Greece and Bulgaria.
- Faith and spirituality were identified in previous research as a major coping strategy used by Greeks (Fountoulakis et al., 2021).
- In this particular study, faith and spirituality, especially observed in a more balanced number of participants in Community 2 selections showed the lowest mean scores on psychological distress. For all the issues some people hold against religion or spirituality, it is clear that this is a protective factor for a significant percentage of the population.

Effects of community belonging and collective resilience

- Vocational Communities
  - It was hypothesized that Vocational communities would have a significant effect on psychological distress. While 64 participants did choose Vocational/Colleagues for their second strongest community and while mean psychological distress scores were actually lower than those who chose Family and Friends for Community 2, Vocational community selection did not show significant results for lower psychological distress as compared to the other community selections.
  - Reflection upon this vocational data is interesting. It appears that work is not necessarily a place the majority of people view as a place for strength and community belonging.
  - When considering the various categories, vocational is unique in that an individual does not always have a choice on whether the person will associate with colleagues (e.g. similar to family).

Additional demographic significance

- In this particular study, data suggests that the younger ages were more vulnerable to psychological distress than older ages. In particular, the age bracket of 51-60 showed significantly lower levels of psychological distress scores as compared to the age bracket of 18-30 and to the age bracket of 31-40.
- Data also suggests that male gender indicates likelihood of significantly lower psychological distress scores than female gender. Also, males who were employed full-time had significantly lower psychological distress as compared to female who were employed full-time. While the participants in this category was a small number, males who were unemployed had higher psychological distress than females who were unemployed.
- Marital status also had a significant effect on psychological distress. Of the 129 participants who were single and 145 participants who were married, the married participants had lower distress.
- **While marital status was significant, living status was not; however, interesting results regarding the number of children were found. Participants with children had lower psychological distress as compared to those with no children, and those with one child had the lowest psychological distress. (Family Community Belonging?)**

Transitional mode of meetings

- While social distancing has indeed caused difficulties for people seeing one another in-person, technology has provided alternative opportunities for people to stay connected. People have gone from seeing one another face to face on a regular basis to not seeing one another in-person for months.
- In this present study, as mentioned in the results, there were 144 communities meeting online, 174 meeting in-person, and 267 meeting in hybrid ways (mixture of online and in-person). The high number of in-person meetings most likely suggests the family and friends category where people are living with or in close proximity to one another.
- Other than this, the majority of communities were meeting in some form of hybrid capacity through the adaptive needs of the pandemic; however, the mode of meeting for the various participants in this study does not show any significant difference on psychological distress.
- **This reality may very well prove to be fuel for why more services, communities, educational opportunities, professional conferences, vocational meetings, etc. will be offered more frequently online or in hybrid capacities into the future.**

Limitations

- Similar to the Austrian context-specific research (Nitschke et al., 2021), this study's data was collected during the end of long lockdowns and within a narrow time period focus, and thus do not include baseline data from which to compare previous psychological distress mean scores of the participants in this research (e.g. preexisting chronic mental health problems). Conducting similar research studies during a non-lockdown time or a non-pandemic time would provide possibility to compare the role of community belonging and collective resilience on general psychological distress of the context-specific populations; nonetheless, empirical evidence exists showing that social connections improve one's coping against distress during times of crisis or during times of normalcy.
- Another possible limitation of this study includes the self-reported assessments to measure psychological distress, something that may cause participants to underestimate symptoms that were present either from personal bias or from an inability to recall symptoms of the four weeks prior to completing the survey.
- Also, this survey was conducted in the English language, which likely narrows the pool of people to more educated individuals (e.g. many participants have completed postgraduate work). Therefore, this representation is not a full representation of the respective cultures or countries.

Suggestions for Future Research

- First, much like the study by Karaivazoglou et al. (2021), it would be helpful to explore other factors that had a significant effect on psychological distress (e.g. individual resilience, more specifics regarding the types of communities, types of coping strategies), including those required groups or communities that may be perceived as having a negative impact on one's psychological distress (e.g. work, family or friends, etc.).
- Second, a larger sample size would be advantageous for gathering more data.
- Third, it would be professionally responsible to look into the differences of high-risk age groups in terms of psychological distress
- Fourth, further studies on how communities made and have sustained the shift to virtual during the pandemic
- Fifth, the role of social media is likely here to stay; nonetheless, its association with higher psychological distress is well worth exploring more in terms of the causal connections for participants who sense community from social media.

Application Ideas for People-Helping Professionals

- If another lockdown happens, useful research will include how existing communities can focus more of providing a greater sense of community for its participants.
- And in order for communities to be effective, the less vulnerable and the more independently resilient individuals might find healthy channels by connecting with the new normalcy of community service through online platforms, beyond one's required groups and into various voluntary groups.
- For sure, the pandemic has caused distress for a lot of people, and it has even caused some people to retreat inwards, away from community. It is likely that even many individually resilient people have been sufficiently overwhelmed during this season of distress, and thus have simply not possessed the energy necessary to engage beyond their inner circle for new relationships or new information. Because social connection is one of the most basic needs for human existence, it is possible that many individually resilient people, although coping relatively okay, have actually longed for authentic, collective belonging with others during this time but simply have not had the mental energy for such connections.
- People can feel lonely and disconnected even with family and friends while they can feel empowered and connected when connecting through online platforms (Luchetti et al., 2020).

Application Ideas for People-Helping Professionals

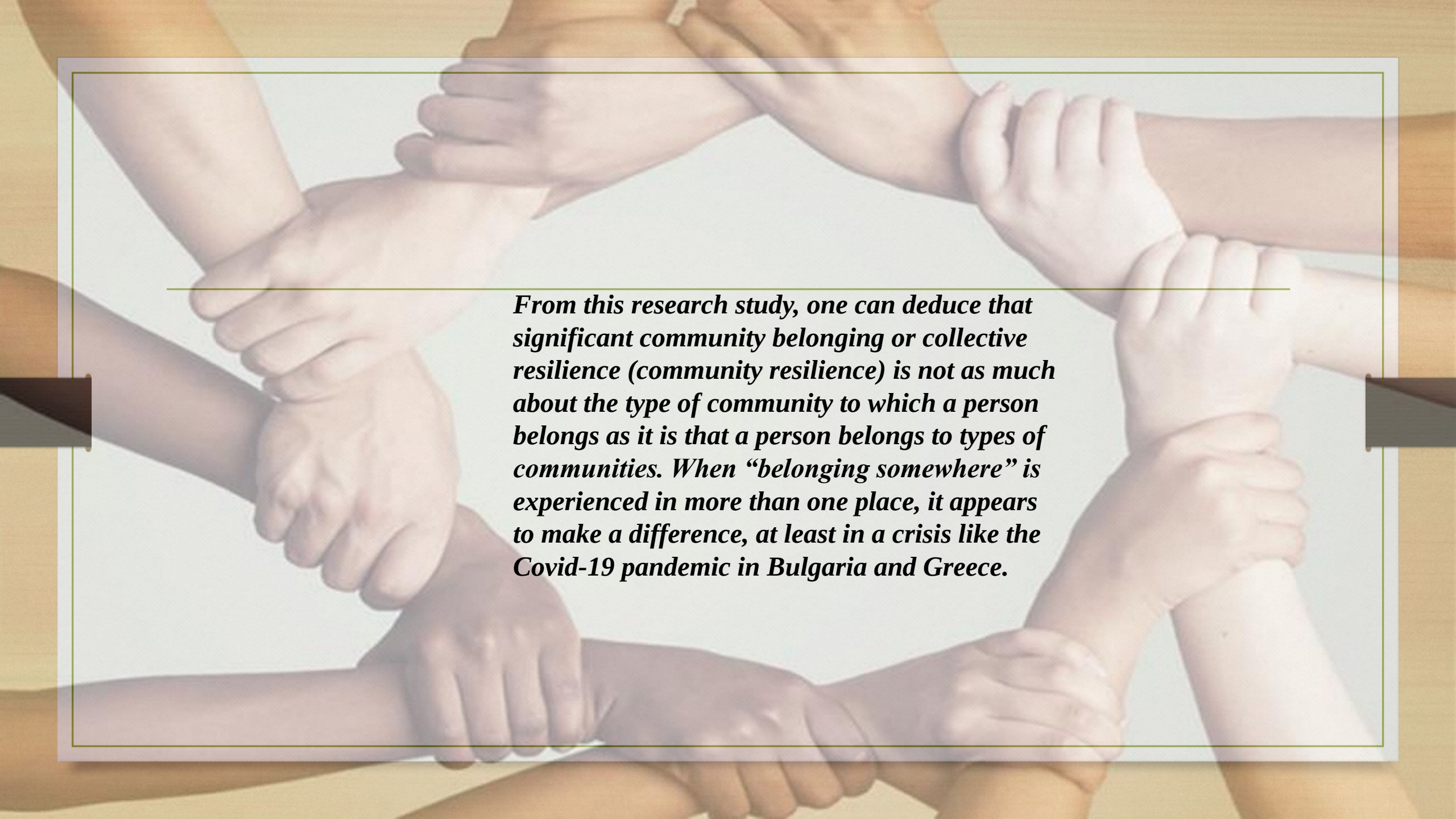
- Because it is unknown what sort of psychological impact the long-term effects of the Covid-19 pandemic will have on society and cultures, it is expected that community belonging and collective resilience will be important ways toward recovery (Serafini et al., 2020). Research tracking the trajectory of this type of community service would be helpful for the vulnerable in society.
- For those in people-helping positions, involvement in community may be worthwhile. In fact, it may even become a win-win for their own well-being because of the interdependent synergy that happens in community.

Conclusion

- **The work of generating healthy communities will be an enduring and dynamic part of the fabric of any culture at any time in history, especially for more difficult times.**

- "Bouncing forward" metaphor (Walsh, 2020) through a virus that has likely reframed the trajectory of what community belonging and collective resilience can be in times of crisis.

- In our efforts to grow more resilient through and beyond the pandemic, strong relationships with family, friends, and community groups are, in the least, one of the essential avenues.



From this research study, one can deduce that significant community belonging or collective resilience (community resilience) is not as much about the type of community to which a person belongs as it is that a person belongs to types of communities. When "belonging somewhere" is experienced in more than one place, it appears to make a difference, at least in a crisis like the Covid-19 pandemic in Bulgaria and Greece.