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Effect of negative social capital on exercise participation in the non-face-to-face era: The case of South Korea

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Lack of access to social bonding sessions owing to the COVID-19 pandemic has had negative effects on older adults' exercise participation. This study examined the relationships between bridging capital, bonding capital, relationship commitment, and exercise participation intention. We surveyed 740 adults aged 50 years or over who visited welfare, health, and senior centers in South Korea. The results showed that bridging capital and bonding capital were positively associated with relationship commitment and exercise participation intention, and that the effect of bridging capital on exercise participation intention was mediated by relationship commitment. Thus, it is necessary to find ways to develop programs that can connect older adults and help them form small networks, in order to promote their exercise participation.

Keywords
social capital, bridging capital, bonding capital, relationship commitment, exercise participation intention, older adults, COVID-19

Article Highlights

- This study validated the concept of social capital among older adults during the COVID-19 pandemic using a two-dimensional framework.
- We found that bridging capital and bonding capital directly and positively affected the exercise participation intention of older adults.
- Relationship commitment played a mediating role in the link between bridging capital and intention to participate in exercise; however, no such mediating role was found for bonding capital and exercise participation intention.

In situations such as the COVID-19 pandemic, when remote communication and individualization are prioritized, a strong commitment to relationships that pursue long-term values is necessary to foster continuous interaction and provide the ability to address collective problems, especially when individuals within a community are highly engaged (Ding et al., 2020; Morgan & Hunt, 1994). However, most studies of health during the COVID-19 pandemic have focused on the impact of social capital, such as depression and loneliness, on the mental health of older adults (Sato et al., 2022; Snel et al., 2022; Sun & Lu, 2020). Although community has been found to be an important factor influencing the behavior of older adults since the onset of the COVID-19 pandemic (Borgonovi & Andrieu, 2020), few studies have examined the link between relationship commitment and exercise participation intention. Therefore, it is important to explore the mechanisms underlying the development of social capital in this setting (A. C. H. Kim et al., 2021).

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Sports club participants interact with various other members based on their shared interest in physical activities centered on specific sports events. Through this process, they form connections based on shared norms and trust. These bonds, social exchanges, and goodwill are collectively referred to as *social capital* (Pitas & Ehmer, 2020). Social capital has been studied in disaster research, with a focus on its multidimensional factors. For example, bridging capital and bonding capital have been recognized as playing key roles in community cohesiveness (Alfano, 2022). *Bridging capital* refers to a heterogeneous network grounded in diverse socioeconomic backgrounds, and although it may have low cohesion, it signifies a culture that respects diversity (Pitas & Ehmer, 2020). The strength of influence of bridging capital can vary because of its foundation in limited emotional closeness or shared norms. However, it can transcend barriers and allow for the collection of novel and varied information from different sources (Ahmad et al., 2023). By contrast, *bonding capital* refers to a highly homogeneous network that emphasizes the common opinions and norms of groups (Alfano, 2022; Qin et al., 2022). Bonding capital pertains to the profundity of connections, rather than the extent of social relationships, and manifests as robust connections characterized by a heightened sense of intimacy (Williams, 2019).

The formation of strong bridging capital leads to a greater and more active exchange of diverse information and resources, and a higher acceptance of new information among members (Laishram & Haokip, 2023). Bekalu et al. (2019) found that bonding and bridging social capital are strengthened when people share communication, social support, interests, knowledge, and skills with one another, which can lead to positive interactions such as acceptance, trust, and reciprocity; this, in turn, can have a positive impact on individuals' health and psychological well-being. Cao et al. (2022) argued that social capital has a positive effect on behavior through relationship commitment, while Vollmer et al. (2019) noted that social capital formation in young people has a positive effect on participation in exercise and sports activities. When examining the correlation between social capital and relationship commitment, it is generally believed that organizations that have established a reciprocity system are more likely to encourage contributions and active engagement from their members through interpersonal interactions while maintaining close connections among members (Tjahjono et al., 2019). Reciprocity is regarded as normative because of its internalization and widespread adherence, which may lead to an increase in relationship commitment. Such commitment may have a positive impact on members' subjective feelings, thereby enhancing organizational productivity and mediating the connection between antecedent and outcome variables (Aruldoss et al., 2021).

Venetis and Ghauri (2004) defined *relationship commitment* as the continuous intention to maintain business relationships, which can be divided into emotional and calculative commitments. *Emotional commitment* refers to the degree to which an individual is willing to invest in a relationship: the higher the commitment, the more stable and satisfying the relationship is likely to be. Conversely, the lower the relationship commitment, the more unstable and unsatisfactory the relationship is likely to be (Zhang & Liu, 2022). Many studies have revealed that members tend to stay within an organization if they like it and find it necessary for their well-being (Meyer & Smith, 2000). In contrast, *calculative commitment* arises from the costs associated with ending the relationship, rather than from an emotional attachment to the organization (Meyer & Allen, 1991). Wang et al. (2012) reported that customers' calculative commitment directly affects their intention to switch, while the quality of their relationship with the organization has a positive impact on their emotional commitment, which, in turn, affects their intention to participate in athletics events. On the basis of these findings, we proposed the following hypotheses and the research model shown in Figure 1:

Hypothesis 1: Bridging capital will be positively related to relationship commitment.

Hypothesis 2: Bridging capital will be positively related to exercise participation intention.

Hypothesis 3: Relationship commitment will mediate the relationship between bridging capital and exercise participation intention.

Hypothesis 4: Bonding capital will be positively related to relationship commitment.

Hypothesis 5: Bonding capital will be positively related to exercise participation intention.

Hypothesis 6: Relationship commitment will mediate the relationship between bonding capital and exercise participation intention.

Hypothesis 7: Relationship commitment will be positively related to exercise participation intention.

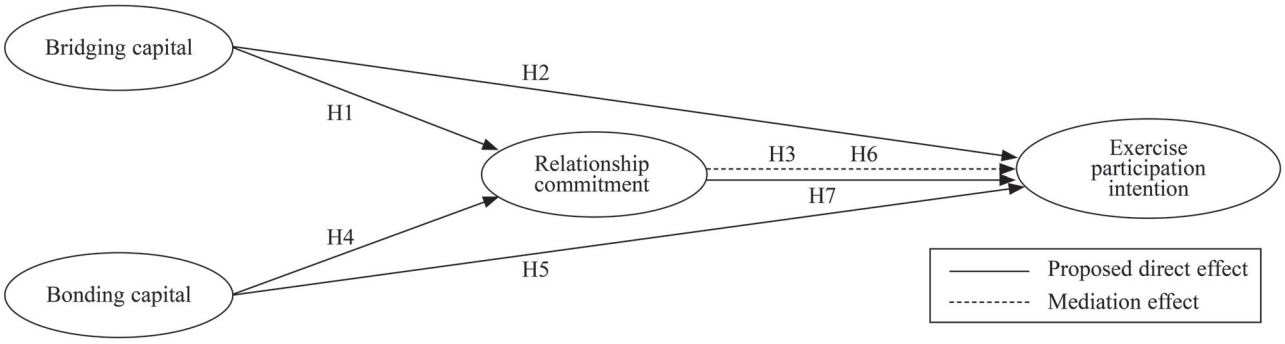

Figure 1. *Research Model*

Method

Participants and Procedure

This study targeted individuals aged 50 years and over in South Korea and utilized online survey distribution and collection methods through the research institutes Panel Marketing Interactive and EMBRAIN for 11 days, from March 10–21, 2022. The participants provided informed consent through electronic signatures. The sample consisted of older adults who attended welfare, public health, and senior centers for sports club activities. A nonprobabilistic sampling method was used to distribute the questionnaires, and 581 completed surveys were included in the analysis.

Recognizing the impact of social capital on engagement in sports may pose methodological difficulties. The primary challenge lies in assessing how certain aspects of social capital are connected to participation in sports clubs while accounting for various influencing factors (Liang et al., 2020). Thus, we asked participants to report whether they participated in regular exercise and which facilities (if any) they used for this purpose. These and other demographic characteristics are shown in Table 1.

Table 1. *General Characteristics of the Participants*

Variables	Subcategory	*n*	%
Gender	Male	295	50.8
	Female	286	49.2
Age (years)	50–59	356	75.6
	60+	108	24.4
Regular exercise participation	Yes	358	61.6
	No	223	38.4
Exercise facilities attended for daily use	Public facilities	62	10.7
	Private facilities	62	10.7
	Home training	104	17.9
	School facilities	8	1.4
	Workplace facilities	6	1.0
	Park	22	42.2
	Other	72	16.1

Note. $N = 581$.

Measures

We adopted six bridging capital items and four bonding capital items from the Social Capital Scale developed by Grootaert and Van Bastelaer (2001). To assess relationship commitment we used six items from the Relationship Commitment Scale by Meyer et al. (1993), revised by Gruen et al. (2000). Four items from Funk et al. (2011) were used for measuring exercise participation intention.

Data Analysis

We used SPSS 25.0 and the PROCESS macro (Model 4) for data analysis. A frequency analysis was conducted to determine the demographic characteristics of the participants, and the internal consistency between items was calculated through Cronbach's alpha coefficient. Confirmatory factor analysis was conducted to validate the composition of the survey, and correlations and multicollinearity between factors were assessed using correlation analysis. The PROCESS macro (Model 4) was used to examine the mediating effect of social capital factors on behavioral intention through relationship commitment.

Results

Validity and Reliability

The content validity of the questionnaire produced for this study was verified by a professor majoring in the sports industry and a researcher majoring in sports sociology. Confirmatory factor analysis was conducted using Anderson and Gerbing's (1988) two-step approach, which measures the validity of the type coefficient and indicates the suitability of the structural model. The results of the confirmatory factor and reliability analyses were as follows: chi square = 754.40, degrees of freedom = 164, Tucker–Lewis index (TLI) = .91, comparative fit index (CFI) = .92, root mean square error of approximation (RMSEA) = .07. CFI and TLI were above the standard threshold of .90 and RMSEA was below the standard threshold of .08 (Lin et al., 2019). In addition, for composite reliability (CR) the sum of the total standardized loadings and variance of the measurement error for each item were added to the sum of the total standardized loadings, yielding values ranging between .90 and .93. Average variance extracted (AVE) values ranged between .60 and .78. These met the reference values of .70 and .50 for CR and AVE, respectively; therefore, the model provided a good fit to the data (Galanti et al., 2021).

Finally, a reliability analysis using Cronbach's alpha coefficient was conducted to ensure the internal consistency of the measurement tool. Values ranged between .77 and .88 for all reference points, which are above the threshold of .70 (Sürücü & Maslakci, 2020). The results are summarized in Table 2.

Table 2. *Results of Confirmatory Factor and Reliability Analyses of the Overall Concept*

Variable	Item	Estimate	*SE*	AVE	CR	α
Bridging capital	Since COVID-19, my interest in new things has decreased.	.65	0.35	.61	.90	.85
	Since COVID-19, my curiosity about other regions of my country has decreased.	.64	0.39			
	Since COVID-19, my frequency of conversations with new people has reduced.	.77	0.28			
	Since COVID-19, I feel that my connection with people has weakened.	.76	0.26			
	Since COVID-19, my willingness to invest time in support for leisure facilities has decreased.	.61	0.34			
	Since COVID-19, opportunities to interact with new people have decreased.	.74	0.27			
Bonding capital	Since COVID-19, fewer friends have been available to think about how to solve our problems together.	.80	0.21	.71	.91	.78
	Since COVID-19, leisure facilities for older adults have fewer people to advise on important decisions.	.78	0.24			
	Since COVID-19, leisure facilities for older adults have fewer people to talk to when we are lonely.	.80	0.23			
	Since COVID-19, leisure facilities for older adults have fewer friends to share exercise information with me.	.69	0.30			
Relationship commitment	Since COVID-19, the affection I feel I receive as a user of leisure facilities for older adults has decreased.	.69	0.28	.65	.91	.85
	Since COVID-19, the feeling of being friends within leisure facilities for older adults has decreased.	.79	0.20			
	Since COVID-19, the idea of being a team within leisure facilities for older adults has decreased.	.78	0.23			
	Since COVID-19, positive relationships within leisure facilities for older adults have decreased.	.78	0.22			
	Since COVID-19, there have been many valuable alternatives to replace existing leisure facilities.	.72	0.28			
	It doesn't cost much to change leisure facilities for older adults.	.45	0.42			
Exercise participation intention	Since COVID-19, I have stopped exercising.	.77	0.24	.79	.94	.89
	Since COVID-19, I have no will to continue exercising.	.82	0.19			
	Since COVID-19, I have stopped exercising even if I have the chance to.	.87	0.12			
	Since COVID-19, I have wanted to stop exercising even if it is possible to continue.	.81	0.18			

Note. AVE = average variance extracted; CR = composite reliability.

Correlation Analysis

Correlations among bridging capital, bonding capital, relationship commitment, and exercise participation intention were analyzed using Pearson correlation coefficients. The analysis confirmed no multicollinearity problem, as the correlations between the variables were statistically significant and were less than .80 (see Table 3).

Table 3. *Results of Correlation Analysis*

Variable	*M* ± *SD*	1	2	3	4
1. Bridging capital	3.44 ± 0.72	1			
2. Bonding capital	3.32 ± 0.68	.65**	1		
3. Relationship commitment	3.16 ± 0.58	.50**	.65**	1	
4. Exercise participation intention	3.83 ± 0.71	.14**	.19**	.15**	1

Note. ** $p < .01$.

Verification of the Mediating Effect of Relationship Commitment on the Link Between Bridging Capital and Exercise Participation Intention

Table 4 shows the effects of older adults' social capital and relationship commitment on their exercise participation intention. First, in Model 1, bridging capital had a significant effect on relationship commitment ($p < .001$). Next, in Model 2, bridging capital had a significant effect on exercise participation intention ($p < .001$). Finally, in Model 3, both bridging capital and relationship commitment had a significant effect on exercise participation intention ($p < .05$). Therefore, Hypotheses 1 and 2 were supported.

Table 4. *Relationships Between Bridging Capital, Relationship Commitment, and Exercise Participation Intention*

Model	Variable	*b*	*SE*	β	*t*	*F*	R^2
1	BR → RC	0.52	0.03	.54	17.28***	298.48	.29
2	BR → EPI	0.15	0.04	.14	3.87**	15.00	.02
3	BR → EPI	0.10	0.05	.09	2.12*	9.69	.03
	RC → EPI	0.10	0.05	.09	2.16*		

Note. BR = bridging capital; RC = relationship commitment; EPI = exercise participation intention.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5 presents the results of a bootstrapping test used to confirm the specific mediating effects. First, the total effect of bridging capital on exercise participation intention was significant ($p < .001$). In bootstrapping tests the mediation effect is significant when zero is not included between the lower and upper confidence interval (CI) limits (Nakagawa & Cuthill, 2007). We found that bridging capital affected exercise participation intention through relationship commitment and that the bias-corrected 95% CI [0.003, 0.103] did not contain zero. Therefore, Hypothesis 3 was supported.

Table 5. *The Mediating Effect of Relationship Commitment on the Link Between Bridging Capital and Exercise Participation Intention*

Variable	Indirect effect	*SE*		95% CI	
				LL	*UL*
Relationship commitment	.05	0.03		0.001	0.100
Variable	Total effect	*SE*	*t*	95% CI	
				LL	*UL*
Bridging capital → Exercise participation intention	.15	0.04	3.87**	0.080	0.230

Note. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
** $p < .01$.

Verification of the Mediating Effect of Relationship Commitment on the Link Between Bonding Capital and Exercise Participation Intention

Table 6 presents the results of the effects test of bonding capital and relationship commitment on exercise participation intention among older adults. First, Model 1 revealed a significant effect of bonding capital on relationship commitment ($p < .001$). Next, Model 2 revealed a significant effect of bonding capital on exercise participation intention ($p < .001$). Finally, in examining the effect of the independent variable and parameters on the dependent variables, Model 3 showed that bonding capital had a significant effect on exercise participation intention ($p < .001$) and that relationship commitment did not significantly affect exercise participation intention. Thus, Hypotheses 4 and 5 were supported.

Table 6. *Relationships Between Bonding Capital, Relationship Commitment, and Exercise Participation Intention*

Model	Variable	*b*	*SE*	β	*t*	*F*	R^2
1	BO → RC	0.67	0.03	.67	24.25***	588.24	.44
2	BO → EPI	0.22	0.04	.19	5.27***	27.82	.04
3	BO → EPI	0.20	0.05	.17	3.57***	14.05	.04
	RC → EPI	0.03	0.05	.03	0.55		

Note. BO = bonding capital; RC = relationship commitment; EPI = exercise participation intention.
* $p < .05$. ** $p < .01$. *** $p < .001$.

As shown in Table 7, the path from bonding capital to exercise participation intention through relationship commitment (α = .02) exhibited a significant bias-corrected 95% CI [0.05, 0.09]; however, overall, bonding capital did not significantly affect exercise participation intention through relationship commitment. Thus, Hypothesis 6 was not supported.

Table 7. *Verification of the Mediating Effect of Relationship Commitment on the Link Between Bonding Capital and Exercise Participation Intention*

Variable	Indirect effect	*SE*	95% CI	
			LL	*UL*
Relationship commitment	.02	0.04	−0.06	0.10

Variable	Total effect	*SE*	*t*	95% CI	
				LL	*UL*
Bonding capital → Exercise participation intention	.22	0.04	5.27***	0.14	0.30

Note. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.
*** $p < .001$.

Verification of the Link Between Relationship Commitment and Exercise Participation Intention

Table 8 shows the effect analysis of relationship commitment on exercise participation intention among older adults. Model 1 revealed that relationship commitment had a significant effect on exercise participation intention ($p < .001$). Therefore, Hypothesis 7 was supported.

Table 8. *Link Between Relationship Commitment and Exercise Participation Intention*

Model	Variable	*b*	*SE*	β	*t*	*F*	R^2
1	Relationship commitment → Exercise participation intention	0.20	0.05	.15	4.10***	16.82	.02

Note. *** $p < .001$.

Discussion

The social problems faced by older adults in South Korea are caused by rapid social change, economic role loss, and the dissolution of traditional families (B. J. Kim & Kihl, 2021). Social capital has been studied as a major factor in solving

social problems occurring in special circumstances, such as COVID-19. However, few researchers have examined the impact of social capital in sports clubs on the intention to participate in exercise, even though sports club usage has significantly decreased since the COVID-19 outbreak. To address this gap in the literature, the main purpose of this study was to investigate exercise participation intention in older adults through social capital (bridging and bonding capital) and relationship commitment.

We found that both bridging capital and bonding capital significantly influence relationship commitment and exercise participation intention, which is consistent with the findings of previous studies (Cao et al., 2022; Tjahjono et al., 2019; Vollmer et al., 2019). Notably, bridging capital plays a stronger role than does bonding capital in influencing relationship commitment. This suggests that older adults who participate in sports clubs tend to have weak but broad social networks, and that relationship commitment and actual exercise participation decrease when this capital is damaged. In other words, the bridging capital experienced in sports clubs is more likely to have a greater impact than do the bonding resources measured by personal emotional support, because these clubs offer a high frequency of social contact with people from different backgrounds in terms of socioeconomic status (Yeo & Lee, 2019).

In this study we found a mediating effect of relationship commitment on the link between bridging capital and exercise participation intention. Mutz and Gerke (2021) stated that during the COVID-19 period, closed infrastructure reduced leisure sports and exercise participation by interrupting the exchange of exercise-related information and instructions on exercise methods. Furthermore, Wen (2020) asserted that networks with weak ties have a high capacity for information transmission and that sharing and diffusion are relatively facilitated. In this context our results indicate that sports club members who are connected through weak ties, as represented by bridging capital, perceive less value in their relationships as the exchange of information and sharing of exercise methods diminishes. Consequently, their participation in exercise decreases.

Public institutions, such as welfare centers and district office exercise programs, are the main means by which older adults with limited social capital can access exercise opportunities. Therefore, community managers should encourage the exchange of exercise information, techniques, and methods within sports clubs to sustain relationships and promote exercise participation among older adults. In particular, activities such as peer-led sessions and buddy systems, which involve forming self-help groups for information sharing and exchange, facilitate the establishment of social capital (Im & Rosenberg, 2016).

Furthermore, Eydi (2016) indicated that enhanced organizational performance is linked to improved work outcomes when relationship commitment mediates the social capital of organizational members. Simons et al. (2020) argued that people tend to be more selective in their social relationships in old age as a strategy for maintaining their well-being; specifically, they prefer emotionally important and reliable social relationships. Therefore, our findings suggest that older adults who have had less contact with relatives or neighbors due to COVID-19 may look for quasicommunities as substitutes for bonding capital in everyday interactions. Thus, to increase exercise participation among older adults, sports clubs must actively leverage quasicommunity participation. For example, enabling members to connect with individuals from other sports clubs or related groups can enhance their interactions. Facilitating connections between different generations within a quasicommunity can also enhance relationships through the exchange of diverse perspectives and experiences, thus promoting a sustained commitment to relationships.

Furthermore, we found a significant link between relationship commitment and exercise participation intention. These results are consistent with those of previous studies that examined the relationship between organizational commitment and behavior (Ekhsan, 2019; Grego-Planer, 2019; Redondo et al., 2021). Emotional and calculative commitment have also been shown to be critical factors in promoting exercise participation intention (Huang & Kim, 2023). This study found that older adult exercise participants who receive fewer incentives from sports clubs have a lower exercise participation intention.

The lack of relationship commitment in sports clubs can lead older adults to stop exercising. To address this, managers should promote social interaction and build trust to encourage more frequent participation in sports club activities. This can be achieved by creating small groups and promoting community functioning.

Limitations and Future Research Directions

This study has several limitations. First, we did not consider the exercise history of our participants. Older adults who have exercised for a long time may have higher social capital than those whose exercise habits are less established. Therefore, future studies could examine differences in exercise duration. Second, this study used self-report questionnaires for data collection, which could have led to recall bias. Future studies could employ a mixed research method, using interviews and questionnaires. Third, this study did not include all areas of social capital. Future studies ould use additional variables with diverse so ial apital onstru ts to derive ri her results.

Conclusion

This study investigated the impact of the non-face-to-face era on sports club activities and exercise participation intention among older adults. Given that older adults require more social interaction than any other age group (Palmer et al., 2016), this study focused on the role of social capital and relationship commitment in older adults' participation in sports clubs. We identified a mediating effect of relationship commitment on social capital and behavioral intention in older adults. The results indicate that a decrease in sports club activities negatively affects exercise participation intention.

On the basis of these findings, exercise programs that foster communication among older adults should be developed. Small networks and sports activity leaders who support older adults' physical activities may enhance their relationship commitment and motivate their continuous participation in sports. Furthermore, this study used the PROCESS macro (Model 4) to investigate the direct, indirect, and total effects between each variable, and derived detailed path coefficients for the mediating effect of relationship commitment. This approach supplements the limitations of the structural equation modeling approach used in previous studies.

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The data that support the findings of this study are available on request from the corresponding author.

References

Ahmad, Z., Soroya, S. H., & Mahmood, K. (2023). Bridging social capital through the use of social networking sites: A systematic literature review. *Journal of Human Behavior in the Social Environment, 33*(4), 473–489. https://doi.org/10.1080/10911359.2022.2064025

Alfano, V. (2022). Does social capital enforce social distancing? The role of bridging and bonding social capital in the evolution of the pandemic. *Economia Politica, 39*(3), 839–859. https://doi.org/10.1007/s40888-021-00255-3

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103*(3), 411–8423. https://doi.org/10.1037/0033-2909.103.3.411

Aruldoss, A., Kowalski, K. B., & Parayitam, S. (2021). The relationship between quality of work life and work-life-balance mediating role of job stress, job satisfaction and job commitment: Evidence from India. *Journal of Advances in Management Research, 18*(1), 36–62.
https://doi.org/10.1108/JAMR-05-2020-0082

Bekalu, M. A., McCloud, R. F., & Viswanath, K. (2019). Association of social media use with social well-being, positive mental health, and self-rated health: Disentangling routine use from emotional connection to use. *Health Education & Behavior, 46*(2_suppl), 69S–80S.
https://doi.org/10.1177/1090198119863768

Borgonovi, F., & Andrieu, E. (2020). Bowling together by bowling alone: Social capital and COVID-19. *Social Science & Medicine, 265*, Article 113501.
https://doi.org/10.1016/j.socscimed.2020.113501

Cao, J., Qiu, H., Morrison, A. M., & Wei, W. (2022). The role of social capital in predicting tourists' waste sorting intentions in rural destinations: Extending the theory of planned behavior. *International Journal of Environmental Research and Public Health, 19*(19), Article 12789.
https://doi.org/10.3390/ijerph191912789

Ding, W., Levine, R., Lin, C., & Xie, W. (2020). *Social distancing and social capital: Why U.S. counties respond differently to COVID-19* (National Bureau of Economic Research Working Papers No. 27393).
https://doi.org/10.3386/w27393

Ekhsan, M. (2019). The influence job satisfaction and organizational commitment on employee turnover intention. *Journal of Business, Management, & Accounting, 1*(1), 48–55.

Eydi, H. (2016). The effects of social capital and job satisfaction on employee performance with organizational commitment as a mediator (a case study of the Ministry of Youth and Sports) [In Persian]. *Organizational Behavior Management in Sport Studies, 2*(4), 11–24.
https://tinyurl.com/nhefjpcf

Funk, D., Jordan, J., Ridinger, L., & Kaplanidou, K. (2011). Capacity of mass participant sport events for the development of activity commitment and future exercise intention. *Leisure Sciences, 33*(3), 250–268.
https://doi.org/10.1080/01490400.2011.564926

Galanti, T., Guidetti, G., Mazzei, E., Zappalà, S., & Toscano, F. (2021). Work from home during the COVID-19 outbreak: The impact on employees' remote work productivity, engagement, and stress. *Journal of Occupational and Environmental Medicine, 63*(7), e426–e432.
https://doi.org/10.1097/JOM.0000000000002236

Grego-Planer, D. (2019). The relationship between organizational commitment and organizational citizenship behaviors in the public and private sectors. *Sustainability, 11*(22), Article 6395.
https://doi.org/10.3390/su11226395

Grootaert, C., & Van Bastelaer, T. (2001). *Understanding and measuring social capital: A synthesis of findings and recommendations from the social capital initiative* (Vol. 24). World Bank, Social Development Family, Environmentally and Socially Sustainable Development Network.

Gruen, T. W., Summers, J. O., & Acito, F. (2000). Relationship marketing activities, commitment, and membership behaviors in professional associations. *Journal of Marketing, 64*(3), 34–49.
https://doi.org/10.1509/jmkg.64.3.34.18030

Huang, Y., & Kim, D. (2023). How does service quality improve consumer loyalty in sports fitness centers? The moderating role of sport involvement. *Sustainability, 15*(17), Article 12840.
https://doi.org/10.3390/su151712840

Im, H., & Rosenberg, R. (2016). Building social capital through a peer-led community health workshop: A pilot with the Bhutanese refugee community. *Journal of Community Health, 41*, 509–517. https://doi.org/10.1007/s10900-015-0124-z

Kim, A. C. H., Ryu, J., Lee, C., Kim, K. M., & Heo, J. (2021). Sport participation and happiness among older adults: A mediating role of social capital. *Journal of Happiness Studies, 22*, 1623–1641. https://doi.org/10.1007/s10902-020-00288-8

Kim, B. J., & Kihl, T. (2021). Suicidal ideation associated with depression and social support: A survey-based analysis of older adults in South Korea. *BMC Psychiatry, 21*(1), Article 409. https://doi.org/10.1186/s12888-021-03423-8

Laishram, C., & Haokip, K. (2023). Implications of social capital on life satisfaction in a stratified society: Gendering the bonding, bridging, and linking framework using representative samples of India. *Quality & Quantity, 57*(4), 3039–3063. https://doi.org/10.1007/s11135-022-01471-0

Liang, H., Yue, Z., Liu, E., & Xiang, N. (2020). How does social capital affect individual health among the elderly in rural China?—Mediating effect analysis of physical exercise and positive attitude. *PLoS ONE, 15*(7), Article e0231318. https://doi.org/10.1371/journal.pone.0231318

Lin, Y.-C., Fung, X. C. C., Tsai, M.-C., Strong, C., Hsieh, Y.-P., & Lin, C.-Y. (2019). Insufficient physical activity and overweight: Does caregiver screen-viewing matter? *Journal of Child and Family Studies, 28*, 286–297. https://doi.org/10.1007/s10826-018-1247-5

Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review, 1*(1), 61–89. https://doi.org/10.1016/1053-4822(91)90011-Z

Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology, 78*(4), 538–551. https://doi.org/10.1037/0021-9010.78.4.538

Meyer, J. P., & Smith, C. A. (2000). HRM practices and organizational commitment: Test of a mediation model. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de Administration, 17*(4), 319–331. https://doi.org/10.1111/j.1936-4490.2000.tb00231.x

Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing, 58*(3), 20–38. https://doi.org/10.1177/002224299405800302

Mutz, M., & Gerke, M. (2021). Sport and exercise in times of self-quarantine: How Germans changed their behaviour at the beginning of the Covid-19 pandemic. *International Review for the Sociology of Sport, 56*(3), 305–316. https://doi.org/10.1177/1012690220934335

Nakagawa, S., & Cuthill, I. C. (2007). Effect size, confidence interval and statistical significance: A practical guide for biologists. *Biological Reviews, 82*(4), 591–605. https://doi.org/10.1111/j.1469-185X.2007.00027.x

Palmer, A. D., Newsom, J. T., & Rook, K. S. (2016). How does difficulty communicating affect the social relationships of older adults? An exploration using data from a national survey. *Journal of Communication Disorders, 62*, 131–146. https://doi.org/10.1016/j.jcomdis.2016.06.002

Pitas, N., & Ehmer, C. (2020). Social capital in the response to COVID-19. *American Journal of Health Promotion, 34*(8), 942–944. https://doi.org/10.1177/0890117120924531

Qin, Z., Tanaka, K., & Matsuoka, S. (2022). Regional disparities in bonding and bridging social capital: An empirical study of rural and urban Japan. *Japanese Journal of Sociology, 31*(1), 110–126. https://doi.org/10.1111/ijjs.12130

Redondo, R., Sparrow, P., & Hernández-Lechuga, G. (2021). The effect of protean careers on talent retention: Examining the relationship between protean career orientation, organizational commitment, job satisfaction and intention to quit for talented workers. *The International Journal of Human Resource Management, 32*(9), 2046–2069. https://doi.org/10.1080/09585192.2019.1579247

Sato, K., Kondo, N., & Kondo, K. (2022). Pre-pandemic individual- and community-level social capital and depressive symptoms during COVID-19: A longitudinal study of Japanese older adults in 2019-21. *Health & Place, 74*, Article 102772. https://doi.org/10.1016/j.healthplace.2022.102772

Simons, M., Lataster, J., Reijnders, J., Peeters, S., Janssens, M., & Jacobs, N. (2020). Bonding personal social capital as an ingredient for positive aging and mental well-being: A study among a sample of Dutch elderly. *Aging & Mental Health, 24*(12), 2034–2042. https://doi.org/10.1080/13607863.2019.1650887

Snel, E., Engbersen, G., de Boom, J., & van Bochove, M. (2022). Social capital as protection against the mental health impact of the COVID-19 pandemic. *Frontiers in Sociology, 7*, Article 728541. https://doi.org/10.3389/fsoc.2022.728541

Sun, Q., & Lu, N. (2020). Social capital and mental health among older adults living in urban China in the context of COVID-19 pandemic. *International Journal of Environmental Research and Public Health, 17*(21), Article 7947. https://doi.org/10.3390/ijerph17217947

Sürücü, L., & Maslakci, A. (2020). Validity and reliability in quantitative research. *Business & Management Studies: An International Journal, 8*(3), 2694–2726. https://doi.org/10.15295/bmij.v8i3.1540

Tjahjono, H. K., Fachrunnisa, O., & Palupi, M. (2019). Configuration of organisational justice and social capital: Their impact on satisfaction and commitment. *International Journal of Business Excellence, 17*(3), 336–360. https://doi.org/10.1504/IJBEX.2019.097957

Venetis, K. A., & Ghauri, P. N. (2004). Service quality and customer retention: Building long-term relationships. *European Journal of Marketing, 38*(11/12), 1577–1598. https://doi.org/10.1108/03090560410560254

Vollmer, J., Lohmann, J., & Giess-Stüber, P. (2019). Relevance of parental cultural capital for adolescents' physical exercise and sport activity. *European Journal for Sport and Society, 16*(4), 342–360. https://doi.org/10.1080/16138171.2019.1693146

Wang, R. T., Ho, C. M., & Zhang, J. J. (2012). Examining the effects of relationship quality and calculative commitment on sport consumer behaviors for intercollegiate athletics. *Journal of Issues in Intercollegiate Athletics, 5,* 301–328. https://tinyurl.com/fwau335c

Wen, N. (2020). Understanding the Chinese public's risk perception and information-seeking behavior regarding genetically modified foods: The role of social media social capital. *Journal of Risk Research, 23*(10), 1370–1386. https://doi.org/10.1080/13669877.2019.1673799

Williams, J. R. (2019). The use of online social networking sites to nurture and cultivate bonding social capital: A systematic review of the literature from 1997 to 2018. *New Media & Society, 21*(11–12), 2710–2729. https://doi.org/10.1177/1461444819858749

Yeo, J., & Lee, Y. G. (2019). Understanding the association between perceived financial well-being and life satisfaction among older adults: Does social capital play a role? *Journal of Family and Economic Issues, 40*, 592–608. https://doi.org/10.1007/s10834-019-09634-2

Zhang, X., & Liu, S. (2022). Understanding relationship commitment and continuous knowledge sharing in online health communities: A social exchange perspective. *Journal of Knowledge Management, 26*(3), 592–614. https://doi.org/10.1108/JKM-12-2020-0883

