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Psychological variables and sport practice during the lockdown caused by Covid-19: comparative analysis

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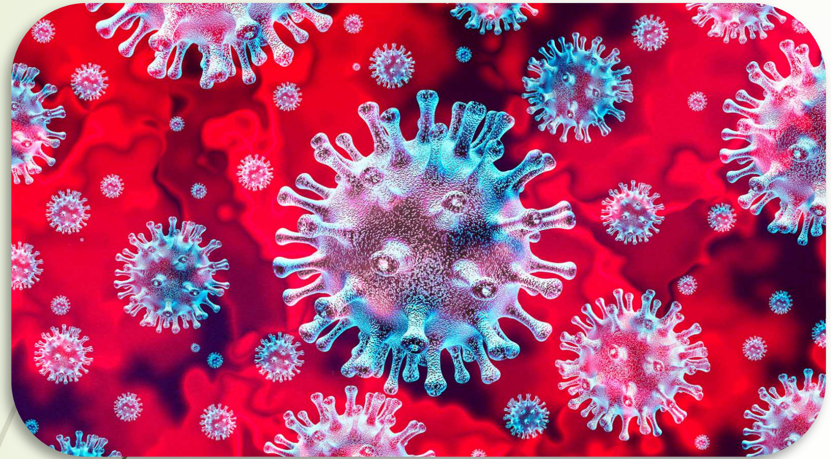
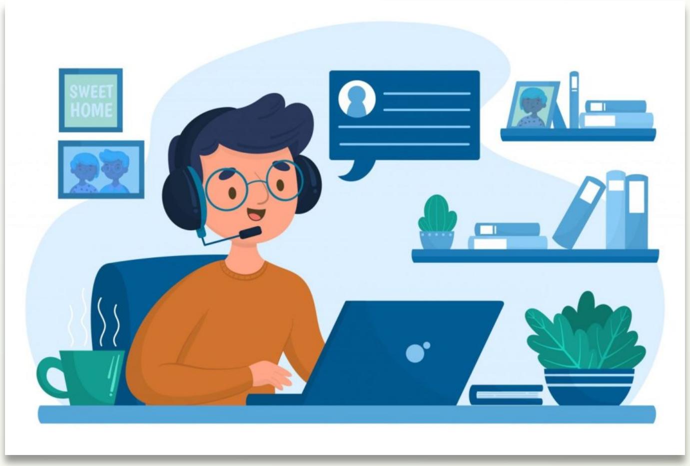
Introduction



The global pandemic caused by the Covid-19 (WHO, 2019), has led to a change in routines, especially during the lockdown. This change in routines has affected ways of working and/or studying, which have been brought online in most cases, requiring a significant adaptation for most people in a short space of time.



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Introduction

Lockdown has affected the practice of physical activity, decreasing or eliminating it in most cases (Ammar et al., 2020; Tison et al., 2020). There are many psychological variables that affect this practice.

Essential variables and determinants for continuity or not with the physical activity practice:

Motivation
(Duchatelet & Donche, 2019)

Basic Psychological Needs of autonomy, competence and relatedness
(Deci & Ryan, 2000)

Perception of Self-Efficacy
(Diego-García et al., 2019)

Commitment with sport practice
(Podlog et al., 2015)

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Objective

- To determine if there were differences between students; workers; worker/students and retired people, in relation to these variables, as well as to determine if there were differences depending on the care or not of children, in order to establish strategies to increase the practice of physical activity.

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Material and Methods

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Participants

- The study sample was comprised of 179 Spanish subjects (90 men and 89 women) between the ages of 18 and 65 years old (M = 28.64; SD = 10.28), who practiced regular physical activity. The selection criteria was that they performed physical activity at least 3 times a week and 150 minutes of moderate/vigorous physical activity, before lockdown. The exclusion criteria were not answering most of the questions and unusual response patterns, although no participants were excluded. Intentional sampling was used for sample selection (Montero & León, 2007).

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Instruments

- Motivation level: The Behavioral Regulation in Sport Questionnaire (BRSQ) by Lonsdale et al. (2008) was used, validated into Spanish by Moreno-Murcia et al. (2011).
- Satisfaction of basic psychological needs: The Psychological Need Satisfaction in Exercise Scale (PNSE) was used, by Wilson et al. (2006)., validated into Spanish by Moreno-Murcia et al. (2011).
- Self-efficacy: The Bandura Self-efficacy Scale was used (2006).
- Commitment to sports practice: The Orlick Sports Commitment Grade Scale (2004) was used, validated into Spanish by Belando et al. (2012).

In all of the questionnaires, answers were provided for all of the items based on a Likert Scale of 5 points, ranging from 1, which means complete disagreement, to 5, completely agree.

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Procedure

- The Google Form platform was used, so that the questionnaire could be accessed online. The questionnaire was disseminated through different channels (WhatsApp, Facebook, twitter and email). The duration of the application of the questionnaire was approximately 15 minutes.

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Data Analysis

- After performing the Kolmogorov-Smirnov normality and variance homogeneity test by means of the Levene test, it should be noted that the results obtained from both tests show a normal distribution of the data, and therefore, parametric statistics were applied.
- A descriptive analysis was carried out of all the measured variables. For the tests of univariate normality, the indicators of skewness and kurtosis of variables were initially used. Values of up to 2 for skewness and 7 for kurtosis are considered normal; values between 2 and 3 for skewness and between 7 and 21 for kurtosis are considered moderately normal; and values above 7 in skewness and 21 in kurtosis are considered non-normal.
- For the analysis of reliability, two indices were used, Cronbach's Alpha (α) (equal to or greater than .70) and the Omega Coefficient (ω), which also serves to check the internal consistency of the variables used in the research and, which, according to some authors have shown evidence of greater accuracy.
- An ANOVA Post-Hoc analysis was carried our based on the employment situation and the care or not of children. For the analysis of the data obtained, the SPSS 23.0 statistical program was used.

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Results

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Results

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Descriptive and Reliability Analysis

Table 1. Descriptive and reliability analysis.

Variables	Range	M[1]	SD[2]	Skewness	Kurtosis	α[3]	ω[4]
BRSQ							
Autonomous Motivation	1-5	4.09	.84	-.92	.42	.96	.97
Controlled Motivation	1-5	1.99	.84	1.01	1.03	.85	.88
Amotivation	1-5	1.60	.88	1.76	3.03	.84	.84
BPNES							
BPN Autonomy	1-5	3.73	.94	-.51	-.44	.86	.86
BPN Competence	1-5	3.96	.93	-.92	.57	.94	.91
BPN Relatedness	1-5	3.45	.93	-.54	-.19	.82	.87
SELF-EFFICACY							
Self-efficacy	1-5	3.44	.76	-.17	-.28	.93	.71
SPORTS COMMITMENT							
Current Commitment	1-5	3.68	.78	-.56	-.27	.82	.86
Future Commitment	1-5	3.20	.87	.08	-.78	.71	.82

[1]M, Media; [2]SD, Standard Deviation; [3]α, Cronbach`s alpha; [4]ω, Omega coefficient.

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Differential Analysis

Regarding the care or not of children, there are no significant differences in any of the variables measured. In relation to the employment situation the results can be observed in Table 2:

Table 2. ANOVA Post-Hoc analysis by employment situation

Variables	*Student*	*Worker*	*Student and Worker*	*Retired*	p^1	*Root mean square*	*F*
Autonomous Motivation	4.23±.77*	3.85±.91*	4.60±.40*	3.96±.81	.00	4.69	7.22
Controlled Motivation	1.95±.77	1.98±.89	2.05±.89	2.10±.73	.94	.88	.12
Amotivation	1.39±.68*	1.81±1.01*	1.46±.73	1.00±.00	.00	3.06	4.08
BPN Autonomy	3.68±.96	3.68±.95	4.11±.72	3.25±1.32	.08	1.99	2.26
BPN Competence	4.24±.75*	3.74±1.00*	4.20±.72	3.55±1.33	.00	3.66	4.47
BPN Relatedness	3.52±.88	3.38±.97	3.58±.95	3.25±.91	.64	.49	.55
Self-Efficacy	3.57±.72	3.28±.79*	3.68±.66*	3.37±.80	.04	1.60	2.80
Current Commitment	3.81±.76	3.53±.79*	4.03±.52*	3.14±1.08*	.00	2.71	4.71
Future Commitment	3.31±.88	3.08±.90	3.52±.67*	2.54±.57*	.01	2.54	3.45

^1p = Significance ($p < .05$) ($p < .01$); *Significant differences between groups.

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Discussion

- There are differences between the groups in the different work situations. Worker/students, who work and study at the same time, showed greater autonomous motivation, self-efficacy and current and future commitment towards the practice of physical activity.
- Students presented significantly more motivation towards the practice of physical activity and at the same time they were the ones who presented the highest BPN of competence.
- Studies, including Pieh et al., 2020; Tudela, 2020 (25-26), have determined that physical activity helps to eliminate stress caused by other aspects such as work and study, which could support the results of this current study in which motivation, self-efficacy and commitment to practice were higher.
- Retired people, in general, presented the lowest values in all variables, with significant results in the current and future commitment to the practice of physical activity. Older people often practice physical activity outdoors or in specialized centers, and they are generally not so used to accessing technology to guide physical activity. These aspects generally affect the practice of physical activity (Sannicandro et al., 2020) and their commitment to it.
- No significant differences were found in the variables measured relating to the care or not of children. Studies such as that of Ingram et al. (2020), associated living with Children with increased alcohol consumption but not with decreased physical activity. There are no studies that analyse the influence of the care or not of Children in the practice of physical activity during confinement.

Discussion

Identifying the level of motivation of people and determining the influence of the context can improve interventions aimed at changing the perception of self-efficacy and commitment to physical activity practice. It would be necessary to propose physical activity programs that last over time, paying special attention to the use of strategies aimed at improving motivation towards sport practice, to ensure that people increase their perception of self-efficacy, dealing more effectively with situations of risk and uncertainty, such the one we live in, and to maintain and/or increase the commitment to sport practice.

Conclusion

- Study and work at the same time, greater autonomous motivation, self-efficacy and current and future commitment towards the practice of physical activity.
- Students are the ones who presented significantly more motivation towards the practice of physical activity and at the same time they were the ones who presented the highest BPN of competence.
- Retired people, in general, presented the lowest values in all variables, being significantly in the current and future commitment to the practice of physical activity.
- No significant differences were found in the variables measured according to the care or not of children

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