



ORIGINAL

Well-being and Inequalities in Cuba. Study of Validity and Reliability of tests

Bienestar y desigualdades en Cuba. Estudio de Validez y Fiabilidad de las pruebas

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ABSTRACT

Introduction: the study of inequalities is a subject that concerns professionals, especially psychologists, whose objective is human happiness. In Cuba, there are many researches that analyze the subject from different perspectives. Well-being has not been “measured” from clinical indicators and, in turn, clinical studies have not sufficiently explored its relationship with inequalities - taking into account the heterogeneization and restructuring that has taken place in the Cuban social structure in the last five years.

Method: the study shared here was aimed at validating the application of 3 questionnaires (WHO-5, Ryff abbreviated and DASS-21) for the measurement of subjective well-being in Cuba. The tests were applied to a sample of Psychology students at the University of Havana. We estimate the reliability of the tests through Cronbach’s α and McDonald’s ω . Construct validity was checked with confirmatory factorial analysis based on structural equations models. Focus groups were also conducted with these students.

Results: the results showed that the abbreviated Ryff and DASS-21 are reliable and valid as a construct, and differentiated reports of well-being related to sex. Structural elements related to the country’s economy, deterioration of public health, existing regulations or policies, and emigration were placed as sources of discomfort, differentiating their impacts in relation to the place occupied in the social structure.

Conclusions: the abbreviated Ryff and DASS-21 showed good reliability and construct validity. Sociodemographic factors differentiate experiences of well-being, although they do not define them. The subjective qualification of well-being and the mediation of various psychological processes are emphasized. It is possible to train in well-being management tools. These results are important in the current national context because contribute to maintaining hope, impel us not to settle into “subjective management” and to take sides in political dynamics. They alert the need for articulation of the different branches of psychology.

Keywords: Psychometrics; Subjective Well-Being; Undergraduate Students; Social Structure; Mental Health.

RESUMEN

Introducción: el estudio de las desigualdades es un tema que preocupa a los profesionales, especialmente a los psicólogos, cuyo objetivo es la felicidad humana. En Cuba existen numerosas investigaciones que analizan el tema desde diferentes perspectivas. El bienestar no ha sido «medido» a partir de indicadores clínicos y, a su vez, los estudios clínicos no han explorado suficientemente su relación con las desigualdades, teniendo en cuenta la heterogeneización y reestructuración que ha tenido lugar en la estructura social cubana en los últimos cinco años.

Método: el estudio estuvo dirigido a validar la aplicación de 3 cuestionarios (OMS-5, Ryff abreviado y DASS-21) para la medición del bienestar subjetivo en Cuba. Las pruebas se aplicaron a una muestra de estudiantes de Psicología de la Universidad de La Habana. Estimamos la fiabilidad de las pruebas mediante α de Cronbach

y ω de McDonald. La validez de constructo se comprobó con análisis factorial confirmatorio, basado en modelos de ecuaciones estructurales. También se realizaron grupos focales con estos estudiantes.

Resultados: los resultados mostraron que el Ryff abreviado y el DASS-21 son fiables y válidos como constructo, y diferenciaron los informes de bienestar relacionados con el sexo. Elementos estructurales relacionados con la economía del país, el deterioro de la salud pública, las regulaciones o políticas existentes y la emigración se situaron como fuentes de malestar, diferenciando sus impactos en relación al lugar ocupado en la estructura social.

Conclusiones: el Ryff abreviado y el DASS-21 mostraron buena fiabilidad y validez de constructo. Los factores sociodemográficos diferencian las experiencias de bienestar, aunque no las definen. Se destaca la cualificación subjetiva del bienestar y la mediación de diversos procesos psicológicos. Es posible entrenarse en herramientas de gestión del bienestar. Estos resultados son importantes en el actual contexto nacional porque contribuyen a mantener la esperanza, nos impulsan a no instalarnos en la «gestión subjetiva» y a tomar partido en las dinámicas políticas. Esto alerta sobre la necesidad de articulación de las diferentes ramas de la psicología.

Palabras clave: Psicometría; Bienestar Subjetivo; Estudiantes Universitarios; Estructura Social; Salud Mental.

INTRODUCTION

The post-COVID-19 scenario in Latin America reveals a troubling persistence and acceleration of inequalities across various sectors, including economics, health, labor, and education. These disparities are not only related to access to resources but also to their valuation and management. The inefficiency in addressing these realities has allowed for the rise of right-wing politics, as public confidence in leftist leadership diminishes due to perceived failures in enhancing individual and collective well-being.^(1,2,3)

This situation has a profound impact on minority groups and the poorest and most vulnerable populations, exacerbating existing inequalities. Globally, these gaps tend to worsen. To analyze this phenomenon, a systematic review of scientific literature on mental health issues arising from pandemics was conducted using databases such as PsycInfo, Scielo, Redalyc, and Dialnet. Additionally, documents from national and international mental health organizations were consulted along with expert opinions. This information led to the creation of a guiding document aimed at addressing the emotional and psychosocial consequences of COVID-19.⁽⁴⁾ These conclusions align with Cuban research regarding experiences during and after the epidemic.^(5,6)

In the Cuban context, further complicated by the tightening of the U.S. blockade, an already existing multisystemic crisis has intensified. The period from 2008 to 2023 has seen Cuban policies undergo a process of updating and reconfiguration that has resulted in both advancements and new social inequalities. While objectives of equity and social justice remain, there has been a shift toward prioritizing economic sustainability as a prerequisite for redistribution. Experts caution that this focus poses significant risks to social well-being.⁽¹⁾

Interviews conducted in June 2023 with Cuban experts in psychology, sociology, and economics explored the concept of well-being, changes in access since 2020, and recommendations for improvement over the next three years. Psychologists emphasized subjective factors such as resilience, while sociologists and economists highlighted the need for structural changes in social and economic policies. All agreed that well-being has significantly deteriorated since the pandemic, with unequal access influenced by gender, skin color, educational level, and geographic location. They also noted a loss of state protection and social networks that can amplify negative states of well-being.

Historically, psychology has focused on human pathology, often neglecting positive human characteristics. This narrow focus has resulted in a pathogenic theoretical framework that promotes a pessimistic view of human nature.^(7,8,9,10,11) However, recent research in Cuba has embraced a more humanistic perspective centered on well-being as a key area within social sciences.^(12,13,14,15,16,17)

This has been endorsed by the University of Havana in a large number of publications about this topic.^(18,19,20,21) In an explicit and amplified way, this topic has been having a fruitful journey through the research project “*Psychological well-being and health*” of the Faculty of Psychology, from 2016 to date.^(22,23,24)

To the authors’ knowledge, no publications have been reported that combine techniques to measure well-being and consider variables associated with social inequalities. Hence the novelty of this article, whose objective is to validate 3 questionnaires (WHO-5, Ryff abbreviated and DASS-21) for the measurement of subjective well-being in Cuba, and to analyze their relationship with variables related to social inequality.

METHOD

The present study is instrumental as its purpose is to analyze evidence of validity and reliability of the instruments used.⁽²⁵⁾ It also has a descriptive and correlational character. We use focus group to study the relations between variables from a qualitative point of view. Triangulation was used to integrate the results.

Participants

All undergraduate students at first and second year of Bachelor Degree in Psychology in Faculty of Psychology, University of Havana, were eligible to participate. Participants were invited via the “WhatsApp” groups that already exists for each scholar year, to fill out an online questionnaire created on the Google Form platform during the period October-November 2023. The questionnaire was completed by 76 students. Of the participants, 84,2 % were female, 76,3 % are white, 18,4 % are *mulato* and 5,3 % had black skin color. The 71,1 % lived in Havana, Cuba. Academic year distribution among students was first year (39), and second year (37). The average age of the respondent was 20,1 years ($SD=1,52$), ranged in age from 18 to 24. The 71,1 % live in their own or a relative’s house, 26,3 % live in the university residence and the rest live in rented houses or apartments. The 13,2 % of the students perform paid work.

There were 4 focal sessions, of 12 members each: two 1st year, two 2nd year. Among the first year, there were 9 females and 3 males; 7 whites, 3 mulattoes and 2 blacks. Among the 2nd year, there were 10 females and 2 males; 7 whites, 5 mulattoes and 1 black.

Procedure

In order to measure inequalities, the variables sex, skin color and school year were taken into account. For well-being measurement, we use The WHO-5 Well-Being Index (1998 version), the Ryff Psychological Well-Being Questionnaire (abbreviated version) and the Depression, Anxiety and Stress Scale (DASS-21), in their Spanish versions.

Data analysis was conducted using Jamovi version 2.5.3.0.⁽²⁶⁾ A statistically significant difference was accepted at a p-value of less than 5 %.

For each scale, internal consistency was evaluated by reliability analysis reflected by Cronbach’s alpha coefficient and McDonald’s omega coefficient.⁽²⁷⁾ A Cronbach’s alpha and McDonald’s omega coefficients with a value of $\geq 0,7$ are acceptable.⁽²⁸⁾ Corrected item-total correlation was carried out.

Construct validity was established by the confirmatory factor analysis (CFA) technique, with Bartlett’s test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy used to test the dataset for factor analysis suitability. CFA is used to assess the overall goodness of fit: the Root Mean Square of Error Approximation RMSEA ($< 0,08$); the Comparative Fit Index CFI ($> 0,9$); and the Tucker-Lewis Index TLI ($> 0,9$).⁽²⁹⁾

Correlations between the total scores of the three scales used were calculated using Kendall’s τ coefficient. Differences between total test scores by academic year and sex were analyzed using t-tests for group comparison.⁽³⁰⁾

Once the questionnaires were completed, group sessions were held over the following two weeks. Each group session had a warm-up, a moment of development in which individual and group work was carried out by answering open-ended questions, and then performing role-plays. A content analysis was carried out on them, taking into account the conception of well-being, self-evaluation of well-being, identification of factors that enhance or hinder well-being.

Questionnaires

The 5-item World Health Organization Well-Being Index (WHO-5) is among the most widely used questionnaires assessing subjective psychological well-being. Since its first publication in 1998, the WHO-5 has been translated into more than 30 languages and has been used in research studies all over the world.⁽³¹⁾

WHO-5 is a frequently used brief standard measure in large-scale cross-cultural clinical studies.⁽³²⁾ Despite its frequent use, some psychometric questions remain that concern the choice of an adequate item response theory model, most importantly the assessment of measurement invariance across countries.⁽³³⁾

In the WHO-5 Well-Being Index, the person is asked to indicate for each of the five statements which one best defines how he/she has felt during the last two weeks. The answers that can be given to each item are “all of the time,” “most of the time,” “more than half of the time,” “less than half of the time,” “occasionally,” and “never”. The scores attributed to these answers are 5, 4, 3, 2, 1 and 0, respectively. For each scale, a total average score was calculated, where higher numbers mean greater well-being.⁽³⁴⁾

The Ryff Psychological Well-Being Questionnaire (abbreviated version) consists of 9 items.⁽³⁵⁾ The answers that can be given to each item are “strongly disagree,” “disagree,” “partially disagree,” “agree,” and “strongly agree”. The scores attributed to these answers are 5, 4, 3, 2, and 1, respectively. The items 4, 5 and 6 are inverted. For each scale, a total average score was calculated, where higher numbers mean greater well-being.^(36,37,38,39)

The Ryff Questionnaire has been used in student population.^(38,39,40,41,42) Emotional disturbances of anxiety and depression are frequent in the student population. The transition to higher education represents a period of risk due to overload academic. For students, the transition from an educational establishment to university is an important change, both in social and academic terms, which can affect mental health, considering academic demands, learning difficulties, the acquisition of new skills for professional development, self-management of schedules, insertion in a new educational environment, etc. among others.

The results show that COVID-19 anxiety affects 40 % of the psychological well-being of university students,

and it was also found that it affects the creation of bonds, the realization of plans and personal acceptance. It is concluded that anxiety due to COVID-19 continues to affect the psychological well-being of university students who return to face-to-face classes and intervention work is necessary in this area.⁽⁴³⁾

The Depression, Anxiety and Stress Scale (DASS-21) consists of 21 items. The person is asked to indicate to what degree each statement has occurred to him/her during the past week. The answers that can be given to each item are “it has not happened to me,” “it has happened to me a little, or for part of the time,” “it has happened to me a lot, or for a good part of the time,” and “it has happened to me a lot, or most of the time”. Three scores attributed to these answers are 0, 1, 2, 3, and 1, respectively. The DASS-21 has three subscales, Depression (items: 3, 5, 10, 13, 16, 17 and 21), Anxiety (items: 2, 4, 7, 9, 15, 19 and 20) and Stress (items: 1, 6, 8, 11, 12, 14 and 18). To evaluate each subscale separately, the scores of the items corresponding to each one should be added. An overall indicator of emotional symptoms can be obtained by adding the scores of all items. The higher the overall score, the greater the degree of symptomatology.⁽⁴⁴⁾

RESULTS

WHO-5 report values of $\alpha = 0,626$ and $\omega = 0,640$, showing an insufficient reliability according to the cut-off point of 0,7 given by the literature. All item-total correlations for the total scale were positive (range 0,293-0,495) within the criterion of item-total correlation greater than 0,30, except for items 4 and 5, although the latter item is very close to 0,30 (DeVellis, 2017). Unlike the results obtained in other studies with university students (Downs, et. al., 2017), in which more emphasis has been placed on clinical symptomatology or medical insolation.

The Ryff Questionnaire shows values of $\alpha = 0,816$ and $\omega = 0,839$, which indicates a high level of internal consistency. All item-total correlations for the total scale were positive (range 0,440-0,598) within the criterion of item-total correlation greater than 0,30.

The DASS-21 shows values of $\alpha = 0,925$ and $\omega = 0,926$, which indicates a very high level of internal consistency. All item-total correlations for the total scale were positive (range 0,365-0,775) within the criterion of item-total correlation greater than 0,30. The Depression subscale reported values of $\alpha = 0,801$ and $\omega = 0,804$, the Anxiety subscale $\alpha = 0,848$ and $\omega = 0,852$, while the Stress subscale reached an $\alpha = 0,808$ and $\omega = 0,814$. These values indicate a very high level of internal consistency for the DASS-21 subscales.

For the WHO-5, the Barlett's sphericity test result was significant ($p < 0,001$), and the KMO measure of sampling adequacy was 0,679. According to the CFA analysis, the model fit of the one-factor model was not confirmed by the indices: χ^2/df 2,740/5; RMSEA = 0,000; CFI = 1,000; TLI = 1,048, with cumulative variance at 27,5 %.

For the Ryff Questionnaire, the Barlett's sphericity test result was significant ($p < 0,001$), and the KMO measure of sampling adequacy was 0,726. According to the CFA analysis, the model fit of the one-factor model was confirmed by the indices: χ^2/df 222/27; RMSEA = 0,310; CFI = 0,876; TLI = 0,834, with cumulative variance at 67,3 %.

For the DASS-21, the Barlett's sphericity test result was significant ($p < 0,001$), and the KMO measure of sampling adequacy was 0,873. According to the CFA analysis, the model fit of the three-factor model was confirmed by the indices: χ^2/df 140/149; RMSEA = 0,000; CFI = 1,000; TLI = 1,003, with cumulative variance at 48,9 %.

The total scores for the WHO-5 reported an average of 11,9 (SD=3,88), ranging from 3 to 19 points. On the other hand, the Ryff Questionnaire showed an average total score of 39,3 (SD = 8,05), ranging from 18 to 54 points. The total scores of the DASS-21 averaged 20,9 (11,8), taking values between 3 and 52 points. In the Depression subscale a mean of 7,05 (SD = 4,04) was reported, in the Anxiety subscale a mean of 5,21 (SD = 4,68) was reached, and in the Stress subscale a mean of 8,61 (SD = 4,26) was found. A categorization of the qualification according to the DASS-21 guidelines in tables 1-3, showed that mild depression (53,9 %), anxiety (50,0 %) and stress (61,8 %) predominate.

Table 1. Frequencies of categories given by the DASS-21 cut-off points - Depression

Categories of Depression	Counts	% of Total
Mild depression	41	53,9%
Moderate depression	20	26,3%
Severe depression	8	10,5%
Extremely severe depression	7	9,2%

Table 2. Frequencies of categories given by the DASS-21 cut-off points - Anxiety

Categories of Anxiety	Counts	% of Total
Mild anxiety	38	50,0%
Moderate anxiety	21	27,6%
Severe anxiety	6	7,9%
Extremely severe anxiety	11	14,5%

Table 3. Frequencies of categories given by the DASS-21 cut-off points - Stress

Categories of Stress	Counts	% of Total
Mild stress	47	61,8%
Moderate stress	12	15,8%
Severe stress	15	19,7%
Extremely severe stress	2	2,6%

A positive and statistically significant correlation ($\tau = 0,301$, $p < 0,001$) was reported between the total scores of the WHO-5 and the Ryff Questionnaire. In addition, negative and statistically significant correlations were reported between the DASS-21 and the WHO-5 ($\tau = -0,411$, $p < 0,001$), and between the DASS-21 and the Ryff Questionnaire ($\tau = -0,397$, $p < 0,001$).

Statistically significant differences were reported between the total scores of the Ryff Questionnaire by sex ($t(74) = -2,176$, $p < 0,05$), where males reached mean values of 43,8 (SD = 6,49) and females 38,5 (SD = 8,07). Statistically significant differences were also reported for the DASS-21 total scores by sex ($t(21,9) = 2,19$, $p < 0,05$), where women reached mean values of 21,8 (SD = 12,22) and men 15,8 (SD = 8,04). No statistically significant differences were reported between the total scores of the three instruments by academic year, and skin color.

In the focus groups, homogeneity was found with respect to the positions defended and the arguments offered to sustain them. Students considered well-being to be closely related to the conceptualization of subjective well-being. Essentially being in a positive situation, being well in the mental, physical and social spheres.

However, in all groups, the economy -the existing precariousness- and the existence of social differences -named as social classes- were placed as decisive factors for people's well-being. Frustration in the face of the failure or limitations of personal projects was made explicit. This element was reported in the same way in all subjects, but their perception in this respect varies: while some - evidently of lower economic resources - blame the economy, those who seem to have greater economic resources place the blame on policies.

Friends, family and pets were at the top of the list in terms of well-being. Those of discomfort were the separation of parents or partners, the presence of illnesses or the general deterioration of health in many of them as well as in family, friends and acquaintances - the reference to COVID 19 was present in 2 of the 4 groups - as well as the losses experienced both by near deaths and by permanent emigration.

Although verbally they refer that the achievement of well-being is related to individual management, they consider that the levels of well-being are differentiated in the population and the arguments are related to economic and material shortages, in addition to access to various opportunities: basic resources such as electricity, water, gas as well as transportation, leisure,

Self-evaluating their well-being, they rate themselves as average (5) fairly well (29) or very well (12). They tend to perceive improvements in the future: quite well (10), very well (28), excellent (8), despite conceiving it as quite uncertain.

In all groups, it was considered important and positive for their well-being to enter the Psychology program, given the possibility of learning new tools, getting closer to new people, and meeting new people belonging to a social group with which they share interests. To this they also attribute their possibilities of maintaining improvements in well-being.

DISCUSSION

This study examines the psychometric properties of the WHO-5, the Ryff Questionnaire, and DASS-21 in undergraduate students of Psychology. Following psychometric tests, this study found that the Ryff Questionnaire, and DASS-21 were reliable and valid for assessing well-being in the sample, while the WHO-5 didn't show those properties.

The internal consistencies of the Ryff Questionnaire ($\alpha = 0,816$ and $\omega = 0,839$), and DASS-21 ($\alpha = 0,925$ and $\omega = 0,926$) were satisfactory, in particular, the subscales of DASS-21 report all the Cronbach's alpha values ranging from $\alpha = 0,801$ - $0,848$ and $\omega = 0,804$ - $0,852$. These values coincide with those of Arce et al.^(36,37) who obtained an $\alpha = 0,96$ for the Ryff Questionnaire.

The differences found with the use of WHO-5 can be explained by the following reasons. Given that its use generally, demonstrated that the WHO-5 has high clinimetric validity, can be used as an outcome measure balancing the wanted and unwanted effects of treatments. The scale has adequate validity both as a screening tool for depression and as an outcome measure in clinical trials.⁽³¹⁾ Without denying the possibility of mental health situations in this population group, as have been detected in other international studies.⁽⁴⁵⁾ Despite its frequent use, some psychometric questions remain that concern the choice.⁽³³⁾

The results of the current study shows that the Ryff Questionnaire and DASS-21 presents good internal consistency values. The corrected item-total correlation values obtained for the items are relatively high, which demonstrates that the items of the scales are relatively homogeneous and are measuring the same overall construct. These values coincide with those of previous researches.^(36,37)

The Ryff Questionnaire and DASS-21 demonstrated satisfactory construct validity, as tested by CFA. The results indicated that most fit indices were in acceptable ranges. Sufficiency of the model was demonstrated by Bartlett's test of sphericity and the KMO measure. These values coincide with those of previous researches.^(36,37)

On average, WHO-5 values of 11,9 (SD=3,88) were obtained, ranging from 3 to 19 points. In this test, a score lower than 13 indicates low well-being, so that 60,5 % of the sample obtained low well-being according to this instrument. In the case of the Ryff Questionnaire showed an average total score of 39,3 (SD = 8,05), ranging from 18 to 54 points, in this scale the higher the value, the higher the well-being. The total scores of the DASS-21 averaged 20,9 (11,8), taking values between 3 and 52 points. In the Depression subscale a mean of 7,05 (SD = 4,04) was reported, in the Anxiety subscale a mean of 5,21 (SD = 4,68) was reached, and in the Stress subscale a mean of 8,61 (SD = 4,26) was found. This means that predominates low levels of depression, anxiety, and stress. However, students with very high values of depression (7), anxiety (11) and stress (2) can be observed. In general, the three instruments used show that the sample experiences adequate levels of subjective well-being.

A positive and statistically significant correlation ($\tau = 0,301$, $p < 0,001$) was reported between the total scores of the WHO-5 and the Ryff Questionnaire, denoting that the total scores of these tests are in direct relationship, and one can be used as a substitute for the other. Negative and statistically significant correlations were reported between the DASS-21 and the WHO-5 ($\tau = -0,411$, $p < 0,001$), and between the DASS-21 and the Ryff Questionnaire ($\tau = -0,397$, $p < 0,001$). This makes sense given that the DASS-21 is an instrument that measures depression, anxiety and stress, which are contrary to the well-being measured by the other two instruments.

Statistically significant differences were reported between the total scores of the Ryff Questionnaire by sex ($t(74) = -2,176$, $p < 0,05$), where males reached mean values of 43,8 (SD = 6,49) and females 38,5 (SD = 8,07). Statistically significant differences were also reported for the DASS-21 total scores by sex ($t(21,9) = 2,19$, $p < 0,05$), where women reached mean values of 21,8 (SD = 12,22) and men 15,8 (SD = 8,04). No statistically significant differences were reported between the total scores of the three instruments by academic year.

Interesting precedent in Chile, attempts to describe and compare this construct in workers from various industries and Higher Education Students. Concludes on the important role of work on psychological well-being and how it varies according to conditions socio-economic conditions of the worker and the sector in which performs. The comparison of psychological well-being between Men and women do not show differences among their averages in the index Global Psychological Well-being.⁽⁴⁶⁾

However, with respect to these relationships, between sociodemographic characteristics and psychological well-being in university students, only a statistically significant association was found between being in psychiatric treatment and a low level of psychological well-being.⁽⁴⁷⁾

In previous studies on psychological well-being carried out in this area with students of Psychology and others from the University of Havana, Cuba. As a result, the psychological well-being of the students presented an average level, with no correlations between this category and the sociodemographic variables collected in the study. While a similar study carried out after the confinement period, during the 2022 academic year, the result was a low level of psychological well-being in the students. Although the research did not aim to establish correlations with sociodemographic variables, interaction with students and the results of the scale applied, it can be stated that sociodemographic variables do not influence students' perceptions of well-being.

CONCLUSION

Given the intention of measuring results related to the well - being-inequality relationship, once the results have been obtained, the application of the abbreviated Ryff and DASS-21 instruments is considered appropriate.

Four issues are noted: 1. sociodemographic factors differentiate experiences of well-being, although they

do not define them; 2. the subjective qualification of well-being and the mediation of various psychological processes are emphasized. 3. It is possible to train in well-being management tools. 4. This does not exempt attention to structural and socio-political issues that constrain well-being and perpetuate structures of advantages and disadvantages, which contribute to the greater difficulty in managing those psychological resources necessary for the construction of well-being.

These conclusions, although they may seem very basic, are important in the current national context in that they: 1. contribute to maintaining hope; 2. impel us not to settle into “subjective management” and to take sides in political dynamics. They alert the need for articulation of the different branches of psychology. The intention is to extend the study sample to university students of other years and faculties; to extend it to other groups of the Cuban social structure.

Regarding the correlation with different variables that account for social inequalities, sex, age, skin color, territory of residence, income, labor linkage, caregiving role are defined for further studies. Triangulation with qualitative techniques is also important, especially in the design of indirect data collection techniques.

Limitations

It is necessary in future research to design a wider, more representative and balanced sample that allows the study of inequalities in Cuban university students. In addition, other socio-psychological variables related to well-being and inequalities should be included. The group sessions were intended in relation to the variables considered in this study, excluding others reported in the literature on inequalities in Cuba, which will be included in further research. There are no previous studies that allow comparing results related to the increase or decrease of well-being in this population.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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