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An integrative model of the subjective well-being of staff working in intellectual disability services



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ABSTRACT

Background: The detrimental effects of caregiving have been well documented. In order to compensate for the disadvantages of caring, research has also tried to identify factors associated to caregivers' subjective well-being (SWB).

Aims: We aim at presenting an integrative model of SWB.

Methods and procedures: Sample consisted of 228 staff working with people with intellectual disabilities. Measures employed included three different components of self-care (social, internal and physical), mental and physical health, conscientiousness, hope, and life satisfaction. The model aimed to explain SWB, measured by life satisfaction, by several variables (self-care, mental and physical health, and conscientiousness), while checking for the role of hope as a partial mediator of these relationships.

Outcomes and results: Results show an overall good fit of the model: $\chi^2(6) = 12.274, p = .056$; CFI = .953; RMSEA = .077 [.000, .139], hence establishing the first model of prediction of SWB of staff in services for people with intellectual disabilities.

Conclusions and implications: Social self-care, mental health and conscientiousness were capable of explaining life satisfaction but only through hope, that is, these factors did not have significant direct effects. The presence of hope may be then necessary for these factors to benefit staff. Strengths and limitations are discussed.

What does this paper add?

Most of the previous research on effects of caregiving has focused on informal caregivers, while the negative effects of caregiving on staff in services for people with intellectual disabilities have long been underrated. The few papers examining the health status of staff working in functional diversity institutions found lower levels of physical and mental health, and pointed to gender, household income and subjective happiness as significant predictors of cognitive well-being. No evidence on subjective well-being has been gathered. Based on the literature on informal caregivers, we therefore provided an integrative, explicative model of the subjective well-being of staff working with people with intellectual disabilities, including self-care, mental and physical health, and conscientiousness, while controlling for the effect of caregiver's age and hypothesizing hope as mediator of the relationship of these

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variables with subjective well-being. Hope resulted a necessary mediator of the effects of social self-care, mental health and conscientiousness, with a direct effect on caregivers working with people with intellectual disabilities' subjective well-being. Physical self-care, psychological self-care and physical health had neither direct nor indirect effects on the subjective well-being of caregivers working with people with intellectual disabilities. This is particularly important for this research arena, as up to now most studies on the well-being of this occupational group had been descriptive and none of them had looked at staff subjective well-being in particular. Future interventions aiming at improving well-being of caregivers working with people with intellectual disabilities should be oriented to improve levels of hope.

1. Introduction

Burnout has been pointed as a significant problem for staff in services for people with intellectual disabilities, which can have potential negative consequences for both workers and quality service. Research has shown that workers in the intellectual disabilities field are at risk of burnout (Skirrow & Hatton, 2007) and more likely to express the intention to quit (Gray & Muramatsu, 2013). In a study by Lin and Lin (2013) this occupational group was found to show higher levels of burnout than general employees in the country of reference. Positive associations have been found between burnout and personal as well as external factors. Personal factors which show a positive relationship with burnout include conscientiousness and neuroticism (Chung & Harding, 2009), emotional demands (Kozak, Kersten, Schillmöller, & Nienhaus, 2013), maladaptive coping strategies (Devereux, Hastings, Noone, Firth, & Totsika, 2009), and life and job dissatisfaction (Kozak et al., 2013). External factors that have been associated with higher levels of burnout are role conflict, work-privacy conflict, job insecurity and absence of feedback (Kozak et al., 2013). Moreover, work stress, among other factors, seems to be positively associated with staff burnout (Gray-Stanley & Muramatsu, 2011). Research on stress among workers in services for people with intellectual disabilities has linked staff stress to very similar factors identified in the literature on burnout, as for example: role conflict, role ambiguity, role overload, unclear job tasks, perceived work demands and maladaptive coping behaviour (Chung & Harding, 2009; Hatton et al., 1999).

However, this literature in staff working in services for people with intellectual disabilities has only focused on those traditional work conditions related to occupational stress and burnout, without paying attention to the specific consequences of working on such an emotional demanding work. Direct care staff are not only workers, but also some of the most important people for those with intellectual disabilities (Sharrard, 1992). Playing such an important role in others' people lives makes caregiving even a more stressful profession. Professionals working in a caregiving context have to balance their motivation for interpersonal engagement with people with intellectual disabilities with self-protective emotional boundaries (Ekman & Halpern, 2015).

Spending a lot of time serving others at the expense of caring for oneself can result in several widely recognized problems (Remen, 2001). Literature on the detrimental effects of caregiving has documented negative consequences for physical and mental health. For example, in a meta-analysis examining differences between caregivers and non-caregivers in physical and psychological health, Pinguart and Sörensen (2003) found that informal caregivers of elders showed lower levels of subjective well-being, self-efficacy and physical health, as well as higher levels of stress and depression. Other findings include a study by Berglund, Lytsy, and Westerling (2015) in which caregivers were found to report lower health-related outcomes as compared to non-caregivers, and a study by Legg, Weir, Langhorne, Smith, and Stott (2012) that found an independent association between providing informal care and perceived poor health. Despite this, researchers have noted that the effects of caregiving on health are somewhat stronger for psychological rather than physical health (Berglund et al., 2015; Litzelman et al., 2014; Schulz & Sherwood, 2008). Indeed, Siebert and Siebert (2005) established a positive relationship among the caregiver-role identity and depression, professional impairment and burnout, and a negative relationship between caregiver-role identity and help-seeking for personal problems. Other research on the negative costs of caring have focused on burnout (Maslach & Jackson, 1982), compassion fatigue (Fingley, 1999; Sansó et al., 2018), affiliate stigma (Werner & Shulman, 2013), and challenging caregiving demands (Larson, 2010).

In order to compensate for the disadvantages of caring, research has also tried to identify factors associated to caregivers' subjective well-being (SWB). SWB is defined as a global evaluation of life quality (Keyes, Shmotkin, & Ryff, 2002) and can be operationalized by measures of life satisfaction (Oliver, Tomás, & Montoro-Rodríguez, 2017) and positive affect (Luhmann, 2017). Authors have frequently reported that caregivers' self-care practices have an impact in their well-being (Galiana, Oliver, Sansó, & Benito, 2015; Sansó et al., 2015). Self-care is understood as any activity or decision made towards the maintenance of one's health and welfare (Dean, 1989; Orem, 1991; Richards, Campenni, & Muse-Burke, 2010). A study by Dionne-Odom et al. (2017) examined the relationship between engagement in self-care practices and well-being in family caregivers of poor prognosis cancer patients. They reported an association between low engagement in self-care practices with lower levels of well-being. Additionally, research from Richards et al. (2010) found a direct positive effect of frequency of self-care practices on general well-being. More generally, several authors (Baker, 2003; Coster & Schwebel, 1997; Weekes, 2014) have stressed the importance for caregivers to engage in self-care practices when aiming to achieve well-being.

Other factors affecting SWB include physical and mental health. Graham and Shier (2010) performed one-to-one interviews asking social work practitioners about how different aspects of their life impacted on their SWB and found that two recurrent aspects that had a positive effect on well-being were good physical and mental health. The fact that caregivers have been seen to report lower levels of perceived health (Berglund et al., 2015; Legg et al., 2012; Litzelman et al., 2014; Schulz & Sherwood, 2008), gives room to think that these low levels of self-reported health may have a negative impact to their SWB. However, to date, literature regarding this issue is rather scant.

Further, conscientious individuals are characterized by high levels of self-discipline, organization and confidence, and caregivers may benefit from this when managing caregiving demands (Löckenhoff, Duberstein, Friedman, & Costa, 2011). In this line,

conscientiousness has been repeatedly linked to health both in the general population (Bogg & Roberts, 2004; Deary, Weiss, & Batty, 2010; Friedman & Kern, 2014) and in caregivers (Löckenhoff et al., 2011). However, less research has considered conscientiousness as a predictor of the well-being of caregivers, despite the considerable number of studies establishing this relationship in samples drawn from general as well as other specific populations (Duckworth, Weir, Tsukayama, & Kwok, 2012; Grant, Langan-Fox, & Anglim, 2009; Jibeen, 2013; Smith, Ryan, & Röcke, 2013). Two researchers that recently looked at the role of conscientiousness as a predictor of informal caregivers' psychological well-being were Bharti and Bhatnagar (2017), who found that high levels of this construct predicted better psychological well-being. However, whereas in the general population, high levels of conscientiousness have been seen to predict subjective well-being (Duckworth et al., 2012; Grant et al., 2009), there is no research looking at the association between conscientiousness and the subjective well-being of caregivers. Whether this relationship holds for the caregiver population is addressed later in this article.

Finally, hope is also seen as a key resource by family caregivers (Duggleby, Williams, Holtslander, Cunningham, & Wright, 2011), and has been described as important and essential (Duggleby, Schroeder, & Nekolaichuk, 2013). Snyder (2002) conceptualized hope as the person's perceived ability to determine different pathways towards desired goals and, making use of agency thinking, motivation to use those pathways. Thus, hope may constitute a powerful resource for caregivers. Research on the consequences of hope for caregivers identified caregiver well-being as an outcome of hope (Duggleby et al., 2010), while other research found that caregivers exhibiting lower levels of hope reported significantly higher levels of caregiver strain (Lohne, Miaskowski, & Rustøen, 2012). On their part, Truitt, Biesecker, Capone, Bailey, and Erby (2012) reported that hope predicted caregiver adaptation, even in the face of uncertainty, and Toussaint, Barry, Angus, Bornfriend, and Markman (2017) have recently found that higher levels of self-forgiveness were associated to lower levels of psychological distress, a relationship that was partially mediated by hope.

Most of the aforementioned research has focused on informal caregivers, while the negative effects of caregiving on direct care workers have long been either ignored or underrated. Direct care workers are, in words of Gray and Muramatsu (2013), those who 'provide essential services for individuals with intellectual and developmental disability' (p. 1). These services consist most of the time in personable and continuous care to those individuals, a care that is provided within the context of a personal relationship (Gray & Muramatsu, 2013). Such occupations include social workers, nurses, psychologists, physiotherapists, doctors, etc. Among direct care workers, those working with people with disabilities have received very limited attention. One of the few papers examining the health status of staff working in functional diversity institutions is that of Lin et al. (2009), in which they aimed at developing a health profile of staff working in services for people with intellectual disabilities, both care workers and people developing other tasks, such as cooks, cleaners.... They found lower levels of physical profiles (bodily pain and general medical health) and mental health profiles (vitality, social functioning and mental health) in caregivers as compared to the general population. Additionally, Lin, Lin, and Wu (2010) studied perceived well-being of staff providing care to people with disabilities and found that up to 20.2% of the respondents reported they were slightly unsatisfied with life. These authors also looked at the determinants of life satisfaction and encountered gender, household income and subjective happiness to be significant predictors of it.

As previously pointed, an important corpus of research has focused on negative outcomes as burnout, stress and intention to quit in this particular occupational group, but explicative models including positive outcomes -as subjective well-being- are yet scarce in the context of direct care workers in intellectual and developmental disabilities. In order to provide original insight in this arena of research, the current study presents an integrative, explicative model of the SWB of staff in services for people with intellectual disabilities. For that purpose, we draw upon the pre-existing literature in order to determine the factors that affect SWB, namely, self-care, mental and physical health, and conscientiousness, while controlling for the effect of caregiver's age. Following the outcomes reported by Toussaint et al. (2017), we hypothesize hope to -at least partially- mediate the relationship of these variables with subjective well-being. To date, no other research has tried to explain the SWB of staff working in functional diversity institutions, as most of the scarce literature has looked at these staff from a rather descriptive perspective.

2. Methods

2.1. Sample and procedure

The sample was obtained from the most representative public-private partnership functional diversity institutions in the province of Córdoba (Spain) according to Andalusian social services public information: Acpacys, Fepamic, Down Córdoba, Promi and Aprosub. These organisations provide support to users with some degree of intellectual disability, and work at promoting users' autonomy and inclusion in the community. Acpacys facilitates 60 users, Fepamic attends 116 users, Down Córdoba attends 160 users, Promi attends 360 users and Aprosub attends 400 users. The support provided in the institutions depends on users' needs and is aimed at developing daily life activities, work skills, social skills and emotional tools. These 5 institutions with a total of 720 workers cover the main workforce attending intellectual disabilities in Córdoba.

The protocol's first step for recruiting centers and individual participants consist of visiting the responsible of each of the 5 main identified key institutions. Once they agreed, he/she sent the link to the anonymous online survey to the organization's staff. The online survey platform allows for monitoring participation rates by organizations. Three organizations initially showed low response rate and according with the participant organizations, printed surveys were delivered with a box for entering the filled surveys guarantying participants' data protection. All institutions gave their consent to the study.

Data was collected using two approaches: online surveys and paper questionnaires. From a census of 720 workers, 38.6% completed the survey, but inclusion criteria only applied to 31.66% of them, with a final sample of 228 workers in the area of functional diversity. 69.2% were women and 30.8% were men. Their age ranged between 23 and 59 years old ($M = 38.59$,

$SD = 9.79$). 65.5% of the participants were married or in a relationship, 28.8% were single, 5.3% were divorced and the remaining 0.4% were widows/widowers.

2.2. Instruments

The survey consisted of questions about sociodemographic data (such as age, gender, marital status, etc.) together with the following measures:

- Professional's Self-Care Scale (Galiana et al., 2015) has nine items measuring activities aimed at keeping positive physical, social and psychological states in three dimensions: internal self-care, which refers to the activities developed towards maintaining a positive psychological state; physical self-care, which relates to those activities intended to keep a healthy body; and social self-care, which includes activities directed towards keeping in contact with others. Items are measured in a 5-point Likert scale, from 1 (completely disagree) to 5 (completely agree).
- Short Form-8 Health Survey Questionnaire (Ware, Kosinski, Dewey, & Gandek, 2001) is a 8-item measure of perceived health and has two factors or components: physical and mental. It was adapted to the Spanish population by Tomás, Galiana, and Fernández (2018) and was measured using a 5-point Likert scale.
- Conscientiousness, as measured by the Big Five (Benet-Martínez & John, 1998). This dimension of personality is composed by 9 items with a Likert scale that ranges from 1 (totally disagree) to 5 (totally agrees).
- Dispositional Hope Scale (DHS; Snyder et al., 1991). This scale is composed by 8 items measuring one single factor of goal seeking abilities and motivations. The Spanish version used in the study was validated by Galiana, Oliver, Sancho, and Tomás (2014). The scale was measured using a Likert scale that ranged from 1 (definitely false) to 5 (definitely true).
- Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985). It is composed by 5 items measuring one general factor of satisfaction with life in a 5-point Likert scale that ranges from 1 (totally disagree) to 5 (totally agree).

2.3. Analyses

A Structural Equation Model (SEM) with observable variables (path analysis) was tested. The model explained subjective well-being, specifically life satisfaction, by several variables, while checking for the role of hope as a partial mediator of these relationships. Variables included age, mental health, physical health, different aspects of self-care -physical, internal and social-, and conscientiousness. Fig. 1 shows the hypothesized model.

Path analysis was performed using the Maximum Likelihood (ML) method of estimation. Model plausibility was assessed using several fit criteria, as recommended by literature (Kline, 2015): chi-square (χ^2) statistic, the Comparative Fit Index (CFI), and the Root Mean Square Root of Approximation (RMSEA). A CFI higher than 0.90 together with a RMSEA lower than 0.08 are regarded as adequate, while CFI higher than 0.95 with a RMSEA lower than 0.05 indicate excellent fit (Hu & Bentler, 1999). Analysis was performed with MPlus 7 (Muthén & Muthén, 1998-2015; Muthén and Muthén, 1998).

3. Results

Before testing the hypothesized model, internal consistency of the different measures to be employed was estimated. Internal consistency estimate was 0.68 for physical self-care, .77 for internal self-care, and 0.70 for social self-care. Physical health presented an alpha of .86, while psychological health's estimation of internal consistency was established at .80. The conscientiousness dimension yielded an alpha .75, while Cronbach's estimates of internal consistency were 0.86 for hope and 0.83 for life satisfaction.

The path analysis tested the predictive effect of several variables on life satisfaction, as well as the role of hope as a mediator of

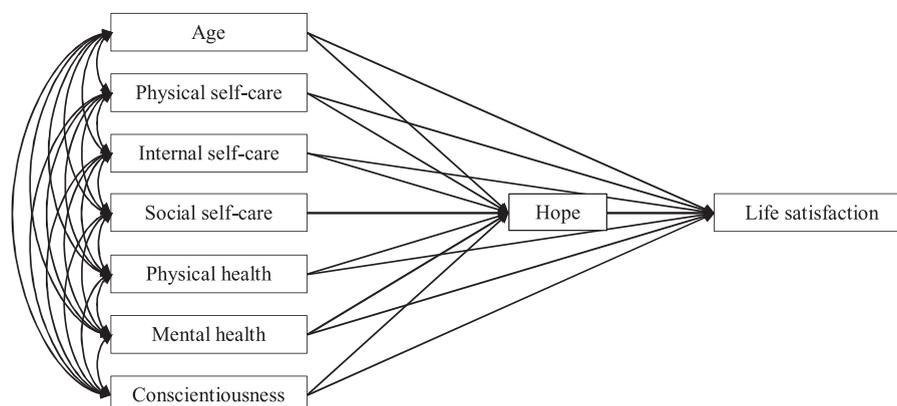


Fig. 1. Theoretical model explaining life satisfaction.

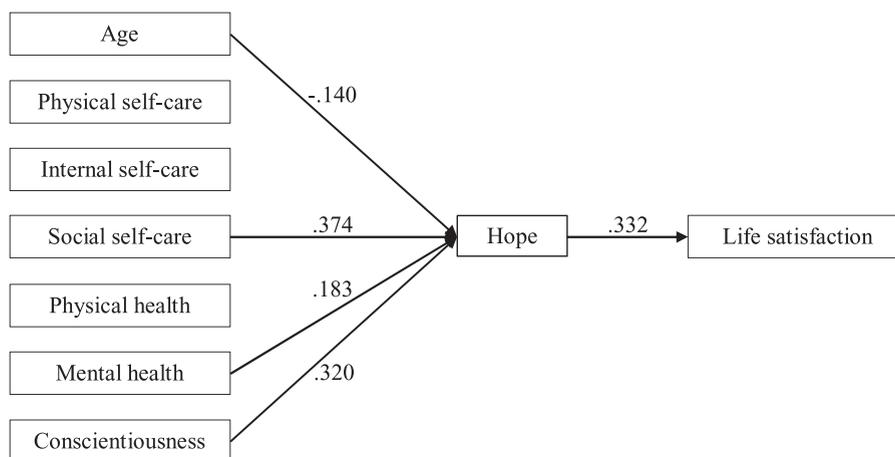


Fig. 2. Resulting predictive model of life satisfaction. Only statistically significant factor loadings ($p < .050$) are shown. Correlations among exogenous variables are displayed in Table 1.

the predictive effect of these variables on life satisfaction. Both direct and indirect effects were tested.

Model fit was adequate: $\chi^2(6) = 12.274$, $p = .056$; CFI = .953; RMSEA = .077 [.000, .139]. For simplicity, only statistically significant factor loadings are shown in Fig. 2.

Physical health, physical self-care and internal self-care did not display a statistically significant effect on life satisfaction, neither directly nor through hope. The rest of the variables showed indirect effects on life satisfaction. Age, mental health, social self-care and conscientiousness explained 44.1% of the variance of hope. These factors had an indirect effect on life satisfaction through hope, the size of which was $\beta = -0.046$ ($p = .046$) for age, $\beta = .061$ ($p = .029$) for mental health, $\beta = .124$ ($p = .001$) for social self-care, and $\beta = .106$ ($p = .002$) for conscientiousness. These variables, together with hope, accounted for 26.9% of the variance of life satisfaction. There were no significant direct effects of any of these variables to life satisfaction. Finally, correlations among the exogenous variables of the model can be consulted in Table 1.

4. Discussion

The present study tested an explicative model of subjective well-being in a sample of staff working in organisations providing support to users with some degree of intellectual disability, a population that has been overly ignored. The model tested the role of some of the most relevant constructs from the literature in predicting subjective well-being and we hypothesized hope to be at least a partial mediator of these relationships. Results showed an adequate fit of the data to the model, with significant effects of social self-care, mental health and conscientiousness as predictors of subjective well-being. Hope resulted to be a full mediator of the relationships between these constructs according to previous research in the same work context (Gray & Muramatsu, 2013) showing evidence of the mediating role of psychological resources as locus of control on job related outcomes. Globally, the model was able to explain 26.9% of life satisfaction (*i.e.* subjective well-being).

Previous researchers (Baker, 2003; Coster & Schwebel, 1997; Dionne-Odom et al., 2017; Richards et al., 2010; Weekes, 2014) highlighted the importance of self-care practices in relation to caregiver well-being. In this study, we differentiated among physical, internal and social components of self-care, according to the World Health Organization (WHO) definition of health, and only social self-care seemed to have an effect on subjective well-being. It has to be borne in mind that carrying out activities of physical and psychological self-care, such as exercise, diet, or meditation, can obviously lead to better health. Thus, a possible relation with these types of self-care with life satisfaction could take place through the effects of health. Additionally, both internal and physical self-care showed positive and moderate correlations with social self-care, 0.148 ($p < .050$) and .243 ($p < 0.001$) respectively, and internal self-care and physical self-care also correlated reasonably positive and high ($r = .369$, $p < .001$).

Table 1

Correlation among the exogenous variables of the model.

	Physical self-care	Internal self-care	Social self-care	Physical health	Mental health
Physical self-care					
Internal self-care	.369***				
Social self-care	.243**	.148*			
Physical health	.130	-.089	.241**		
Mental health	.218**	-.031	.264**	.470***	
Conscientiousness	.236**	.045	.193*	.145	.218**

Notes: * $p < .050$; ** $p < .010$; *** $p < .001$.

Regarding physical and mental health, the model showed that mental health had a significant indirect effect on life satisfaction. Physical health did not display any effect, neither direct nor indirect, on life satisfaction, but it had a reasonably strong correlation with mental health ($r = 0.470$, $p < 0.001$). This result is in line with other authors (Schulz & Sherwood, 2008), who argued that, among physical and mental health, it is latest the one which bears the brunt when it comes to negative consequences of caregiving. In this line, having more mental health problems could be the reason of this dimension of health affecting subjective well-being to a larger extent. Moreover, Litzelman et al. (2014) had also reported that informal caregivers showed worse mental, but not physical, health than non-caregivers. Thus it seems that the strength of the relationships of mental and physical health found on the informal caregiver literature also holds true for staff working in services for people with intellectual disabilities.

As for conscientiousness, following the findings offered by Duckworth et al. (2012) and Grant et al. (2009) in the general population, the model tested whether conscientiousness could predict informal caregivers' subjective well-being. Conscientiousness accounted for the explanation of subjective well-being through hope, not displaying a direct effect itself. This may be signaling that self-discipline, organization and confidence, which characterize conscientious individuals (Löckenhoff et al., 2011), may only benefit caregivers when they are provided with hope, that is, they see themselves as capable of determining different pathways to a goal, and become motivated to follow those pathways (Snyder, 2002).

Finally, it seems worthy to highlight the mediating role that hope played in the explanation of staff's SWB. Indeed, the presence of hope may be then necessary for these factors to benefit staff working in services for people with intellectual disabilities. Similarly, Gray and Muramatsu (2013) provided evidence on the importance of psychological resources (locus of control) mediating between work stress and outcomes as intention to quit in the same staff group. These current results support their findings, adding the perspective of measuring the mediator role of psychological resources on positive outcomes. Actually, researchers (Duggleby et al., 2011, 2013) had already claimed the importance of hope as a resource for informal caregivers. Likewise, Toussaint et al. (2017) previously found hope to partially mediate the relationship between self-forgiveness and informal caregivers' psychological distress.

If we take into account the socio-economic moment of Spain in which the study was developed, results regarding hope can be easily explained. The research was carried out during 2015–2017, in which the Spanish society was still recovering from a hard economic crisis. The international crisis that took place in 2008 had important economic and social consequences in Spain, because of the real state bubble. These consequences were even worse for those people at risk of social exclusion, as it is the case of people with disabilities; and, consequently, it affected the staff working with them. The effects of the crisis for these workers were double. On one hand, the crisis meant cuts and reductions in social services, including functional diversity institutions, with difficulties to guarantee the continuity and sustainability of the programs already started, and reductions in both human and material resources. On the other hand, the crisis also affected people with disabilities, as they had to face more difficulties to get a job, reduced healthcare services, and less economic resources were intended for participation and accessibility policies. In such a struggling context, hope, understood as the ability for seeking abilities and motivations could make the difference between the workers who looked forward and had positive expectations about the future, and thus could preserve an adequate well-being; and those who lacked of hope, and felt trapped by that wretched situation.

In summation, it seems that hope may be acting in a catalytic way, potentiating the effects that different antecedent variables have on the subjective well-being of these workers.

5. Conclusions

The present research is the first to test the role of hope as a mediator when trying to explain positive outcomes as the subjective well-being of staff working with people with intellectual disabilities. Results showed that social self-care, mental health and conscientiousness were capable of explaining life satisfaction but only through hope, that is, these factors did not have significant direct effects, being the presence of hope necessary for staff's SWB understanding and prediction. These results are of paramount importance for future interventions aimed at improve these professionals' well-being, as it identifies hope as the key element to success in this purpose.

A large amount of literature explores informal caregivers' well-being, but less is known about those whose *formal* occupation is to care for others. The new evidence here presented offers the first glimpse of direct care workers' subjective well-being. Besides that, this study is the first to introduce conscientiousness and self-care as predictors of well-being in the direct care workers' literature. The study also presents some limitations. Firstly, while a cross-sectional study is sufficient to establish relationships, a longitudinal perspective would have enabled us to establish causality. Secondly, subjective well-being was measured by life satisfaction alone, instead of using an additional positive affect measure. Future research amending these shortcomings would be welcomed.

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