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"Keeping Up with the Joneses": Subjective Social Status Predicts Proactive Coping

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Abstract
Proactive coping involves actions to prevent or alter the form of future stressors which can be important for successful aging processes, but it relies on resources. We tested internal (physical health) and external (perceptions of social status and objective socioeconomic status) resources as predictors of proactive coping. 296 adults ranging in age from 60 to 90 ($M = 64.67$) responded to the Mindfulness and Anticipatory Coping Everyday (MACE) survey (English et al. in Eur J Ageing, 2019, https://doi.org/10.1007/s10433-018-0475-2; Neupert and Bellingtier in Gerontologist 57(S2):S187–S192, 2017, https://doi.org/10.1093/geront/gnx055). Older adults with higher subjective social status within their community possessed higher proactive coping skills than those with lower subjective social status. This finding was consistent across the older adult age range and was over and above the effects of objective socioeconomic status. In addition, older adults with more chronic health conditions reported less proactive coping than those with fewer health conditions. These results suggest that physical health along with the way older adults view their social status with respect to others in their community may have an impact on their ability to develop and use proactive coping.

Keywords Proactive coping · Subjective social status · Socioeconomic status · Physical health

Introduction

Some of the biggest threats to health for older adults are related to stressors. Older adults are especially vulnerable to stress because of normative declines in immune function: increased stress places older adults at increased risk for acute health problems (Kiecolt-Glaser & Glaser, 2001). Individual differences in exposure and reactivity to stressors likely play important roles, as psychosocial stress may "age" the immune system (Graham et al., 2006). Although it is generally accepted that stress is associated with poorer health and cognitive functioning, previous work has focused on what happens *after* the stressor occurs. Resources that are mobilized prior to or at the beginning of a problem are more efficient and effective than resources that are required to combat a more severe problem that has been ignored (Aspinwall & Taylor, 1997). Importantly, older adults are at a critical period when interventions could benefit at-risk individuals and prevent further health-related declines (Lupien et al., 2005). Thus, efforts to prevent exposure to or reduce the effects of stress could have tremendous health benefits for older adults.

The Proactivity Model of Successful Aging (Kahana & Kahana, 1996, 2001; Kahana et al., 2003, 2012) characterizes successful aging based on processes to deal with challenges (Baltes & Baltes, 1990; Schulz & Heckhausen, 1996) rather than solely based on outcomes (Rowe & Kahn, 1997). This model was developed to emphasize the potential of older adults to meet challenges through the use of internal (active coping) and external (income) resources (Kahana & Kahana, 1996). These resources are hypothesized to be important for subsequent proactive adaptations (Kahana et al., 2012), which are viewed as the engine that drives successful aging (Aspinwall, 2011). Past work has identified physical health as an important resource for motivation and cognitive performance in older adults (Hess et al., 2012), so in the current study we bring together an examination of internal (physical health) and external (objective and subjective social status) resources to predict proactive coping among older adults.

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Proactive coping is the process through which an individual initiates the use of resources to aid in the prevention of, or lessening of, potential future stressors (Aspinwall & Taylor, 1997). The assessment of future goals and setting the stage to achieve them successfully is a key component of proactive coping (Schwarzer & Taubert, 2002). This coping strategy differs from reactive coping because it requires accumulation of resources and implementation *prior* to a stressor (Aspinwall & Taylor, 1997). Proactive coping has several important benefits: (1) it may minimize the degree of stress experienced during a stressful encounter (Hobfoll, 1989); (2) the ratio of coping resources to the magnitude of the stressor is more likely to be favorable when the stressor is targeted in its early stages (Aspinwall & Taylor, 1997); (3) when a stressful event has not yet occurred, there are more options available to manage it (Aspinwall & Taylor, 1997); and (4) chronic stress can be reduced when individuals are able to avert or minimize stressors (Aspinwall & Taylor, 1997). Higher proactive coping is associated with positive mental health outcomes (Cai & Kohyama, 2018) and better psychological functioning (Greenglass & Fiksenbaum, 2009). Additional studies have indicated that proactive coping is associated with positive well-being, affect, and subjective well-being (Sohl & Moyer, 2009). Higher proactive coping is also an indicator of higher life satisfaction (Stanojević et al., 2014). However, there is only limited empirical work examining the antecedents of proactive coping, and none have focused on older adults in particular.

Specific resources can aid in the development of the general skill of proactive coping. Indeed, the first stage of proactive coping in Aspinwall and Taylor's (1997) model is resource accumulation, involving building a reserve of temporal, financial, and social resources. We know from past work that social support plays a key role in using proactive coping (Bokszczanin, 2012). Evidence of this is also found in primate research which shows that rank within hierarchies greatly influences quality of life (Sapolsky, 2005). The mechanisms that connect social status with the ability to thrive in primates strongly rely on access to resources (i.e., food access) (Bercovitch, 1991; Munuera et al., 2018). However, other social indicators, such as subjective social status, have not been examined with respect to proactive coping.

There is a strong body of previous work documenting the association of objective socioeconomic status with stressor exposure and reactivity. Individuals with a low objective socioeconomic status are more reactive to stress (Grzywacz et al., 2004), which may work against the resource accumulation necessary to begin the process of developing proactive coping strategies (Taylor & Seeman, 1999). High-stress environments also affect cognitive load such that the individual is forced to direct their immediate attention to addressing a current stressor, making it difficult to allocate cognitive planning for future stressors (Pearlin et al., 1981). However, we are unaware of any work examining subjective perceptions of these resources as predictors of proactive coping.

One subjective perception that may be important for proactive coping is subjective social status, which is a self-reported measure of how an individual views themselves in relation to others within their community or country (Adler et al., 2000). This measure differs from objective socioeconomic indicators which rely on income, occupation, and education to assess an individual's standing. Subjective social status allows an individual to assess unique factors that may allow for a more accurate measure of where an individual fits within their community (Andersson, 2018). There is a strong developmental aspect to subjective social status, as it captures the cumulative impact of one's shifting socioeconomic status throughout their lifetime (Chen et al., 2012).

Subjective social status can vary by reference category; that is, one can perceive their social status compared to their community or compared to the country at large. There are local variations in income required to meet acceptable standards of living and discrepancies between income earned and income available for spending or accumulated wealth (Braveman et al., 2005). Older adults may face particular financial challenges with respect to the fixed income nature of social security, which is the primary source of income for more than half of older adults in the United States (Social Security Administration, 2016). Additionally, the same education level may have different social implications depending on one's ethnicity, gender, and age (Braveman et al., 2005) or hold various weights, depending on various demographic locations and incomes in that area (Andersson, 2018).

One method to circumvent the challenges of objective socioeconomic status indicators is to allow participants to self-report their social standing in reference to those in their community (i.e., the MacArthur Scales of Subjective Social Status). The expression, "keeping up with the Joneses" refers to the tendency of individuals to compare themselves to their neighbors as a way to judge their social standing (English et al., 2019). This method of capturing social status asks individuals to identify their position on a pictorial representation of a ladder where the bottom rung indicates the lowest social standing and the tenth or top rung indicates the highest social standing in their community (Adler et al., 2000). This method allows participants to consider multiple factors such as current occupation, income, wealth, education, and location that may influence their current social standing (Andersson, 2015). Importantly, it allows participants to consider their status in regards to other members of their community and represents a form of social inequality (Demakakos et al., 2018). The personal evaluation or appraisal of available resources to cope with stressors is more important than the actual availability of resources (Martin & Westerhof, 2003). For example, the income or

education that indicate high status in one neighborhood, may be considered low status in another. Thus subjective social status allows for a comparison to "the Joneses" that is missing in objective indicators (Wolff et al., 2010).

Subjective social status is a better predictor than objective socioeconomic status in several health-related outcomes including health changes (Singh-Manoux et al., 2005), functional impairment (Chen et al., 2012), depression (Diaz et al., 2014), and mortality (Kopp et al., 2004). These findings suggest that subjective perceptions may play a more important role in well-being than traditional objective markers. Possessing a higher community subjective social status is associated with lower anxiety and stress, a positive relationship to healthier dietary choices, lower blood pressure (Ghaed & Gallo, 2007), and less loneliness (Ayalon, 2019). The benefits of higher subjective social status have been shown in relation to well-being, but there has been no examination of the possible mechanisms underlying this relationship, such as coping.

In addition to external resources such as subjective social status, it is important to consider the role of internal resources for proactive coping. Because proactive coping is future oriented and goal directed, tenets from the Selection, Optimization, and Compensation model (Baltes et al., 1999) can be applied when considering this process within older adults. This model suggests that there is a shift from growth-based goals to loss-based goals in later life as older adults focus their resources on maintenance of functioning. Extending these ideas, normative age-related declines in health result in greater selectivity in task engagement in later life due to changes in resources necessary to support engagement (Hess, 2014; Hess et al., 2012). Thus, physical health may function as an important and necessary resource for older adults to be able to maintain high levels of proactive coping.

Current Study

Previous research has focused on the variation in objective socioeconomic and subjective social status in relation to health outcomes, but there has been no assessment regarding these resources as predictors of proactive coping strategies. Further, no study to date has examined these relationships with a focus on older adults. We examined internal (physical health) and external (socioeconomic status) resources as antecedents of proactive coping in older adults in line with the Proactivity Model of Successful Aging (Kahana & Kahana, 1996, 2001; Kahana et al., 2003, 2012). We hypothesized that subjective social status would be a better measure in predicting one's proactive coping than objective socioeconomic status. We further hypothesized that those with fewer chronic conditions (i.e., better physical health) would report higher proactive coping than those with more chronic conditions.

Methods

Participants

Participants were from the Mindfulness Anticipatory Coping Everyday (MACE) online daily diary study (English et al., 2019; Neupert & Bellingtier, 2017) with 296 participants ranging in age from 60 to 90 ($M = 64.67$, $SD = 4.36$). The sample was identified as primarily white (81%). Individuals were recruited using a Human Intelligent Task on Amazon's Mechanical Turk (MTurk) and were compensated $1 for completing the baseline survey. We utilized filters to restrict participants to adults living in the USA. We requested participants with a minimum age of 60 years which we confirmed by comparing their numerical age to birth date which were reported on separate screens and separated by other study questions.

Procedure

Participants were given a link directing them to Qualtrics where they provided informed consent and then completed the survey. All data for the present study came from the baseline survey which collected demographic data (income, education level, age) as well as information on chronic health conditions, proactive coping and subjective social status.

Measures

Subjective Social Status Within the Community

MacArthur Scales of Subjective Social Status was used to measure an individual's community subjective social status (Adler et al., 2000). Participants were shown an image of a ladder and asked to imagine that it represented their standing within the community in relation to others. Rung 1 represented lowest standing and rung 10 represented highest standing. Participants selected the rung that matched their perceived status.

Subjective Social Status Within the US

MacArthur Scales of Subjective Social Status was also used to measure an individual's subjective social status within the larger U.S. population (Adler et al., 2000). Participants were shown an image of a ladder and asked to select the run which reflected their perceived status in relation to other individuals within the U.S. population.

Chronic Conditions

Chronic conditions were assessed using the chronic conditions checklist from the National Survey of Midlife Development in the United States (MIDUS; Brim et al., 1996). Participants indicated "yes" or "no" to experiencing or being treated for any of 29 chronic health problems (e.g., asthma, arthritis, and migraine headaches) in the past 12 months. Sum scores were created by totaling the number of "yes" responses.

Proactive Coping

Proactive coping was measured using the Proactive Coping Scale from the Proactive Coping Inventory (Greenglass et al., 1999). This scale contains 14 items that combine autonomous goal setting with self-regulatory goal attainment cognitions and behavior. Participants answered questions using a 4 point scale, 1 (*not at all true*) to 4 (*completely true*), which included items such as: "I visualize my dreams and try to achieve them" and "I turn obstacles into positive experiences". A cumulative total was computed, with lower totals reflecting lower proactive coping and higher totals indicating higher proactive coping. The scale has high internal consistency as seen in reliability measures ranging from (α) .80 (Greenglass et al., 1999) to .88 (Sohl & Moyer, 2009). In addition, the scale shows good item-total correlations and acceptable skewness as an indicator of symmetry around the mean. A principal component analysis confirmed its factorial validity and homogeneity (Greenglass et al., 1999). In our current study we had a reliability measure (α) of .88.

Covariates

Education was reported by participants as the highest level of schooling completed: 1 (*no school/some grade school*) to 12 (*PhD*, *MD*, *or other professional degree*). Income was reported as current total household income per year in U.S. dollars with options ranging from "between $0 and $11,999" and "$100,000 or more."

Results

Descriptive statistics and correlations among all study variables can be found in Table 1. Proactive coping was positively correlated with subjective social status within the U.S. and subjective social status within the community, but it was not associated with any of the objective measures of socioeconomic status or chronic conditions.

A hierarchical multiple regression included age, education, income, and chronic conditions in the first block, and then subjective social status within the U.S. and community were used as predictors of proactive coping in the second block (see Table 2). The overall model was statistically significant in predicting proactive coping, F (6, 289) = 4.21, $p < .001$, $R^2 = 8\%$, with subjective social status within the community and chronic conditions each functioning as unique and significant predictors. Specifically, older adults high in subjective social status were also high in proactive coping, and those with fewer chronic conditions were

Table 2 Hierarchical regression results for proactive coping

Variable	*B*	*SE B*	*β*	R^2
Step 1				
Constant	2.45**	0.48		.02
Age	0.01	0.01	.06	
Income	0.01	0.01	.07	
Education	−0.004	0.02	−.02	
Chronic conditions	−0.01	0.01	−.09	
Step 2				
Constant	2.44**	0.47		.08**
Age	0.004	0.01	.03	
Income	−0.02	0.01	−.09	
Education	−0.01	0.02	−.05	
Chronic conditions	−0.02*	0.01	−.14*	
Subjective social status in U.S.	0.04	0.03	.12	
Subjective social status in community	0.06*	0.03	.20*	

$N = 296$. *$p < .05$, **$p < .001$

Table 1 Descriptive statistics and correlations for study variables

Variable	*M*	*SD*	1	2	3	4	5	6
1. Proactive coping	2.91	0.54						
2. Age	64.67	4.36	.06					
3. Education	8.07	2.21	.03	.06				
4. Income	5.76	2.97	.08	−.01	.37**			
5. Chronic conditions	3.47	3.56	−.10	.02	−.18**	−.18**		
6. Subjective social status in U.S	5.27	1.84	.21**	.04	.35***	.58***	−.02	
7. Subjective social status in community	5.39	1.91	.24***	.12*	.23***	.47***	.06	.77***

$N = 296$. *$p < .05$, **$p < .01$, ***$p < .001$

also high in proactive coping. Age, education, income, and subjective social status within the U.S. were not significant predictors.

Because of our wide age range across older adulthood, we also tested to see whether the effects of subjective social status and chronic conditions would differ by age. We tested an additional multiple regression that included mean-centered interaction terms of Age X Subjective Social Status within the U.S., Age X Subjective Social Status within the Community, and Age X Chronic Conditions in a third block. None of the interactions were significant (Age X Subjective Social Status U.S.: $\beta = .03$, $p = .759$; Age X Subjective Social Status Community: $\beta = -.05$, $p = .595$; Age X Chronic Conditions: $\beta = .04$, $p = .508$), suggesting that the effects of subjective social status and chronic conditions are consistent across older adulthood.

Discussion

This study sought to examine resources as antecedents of proactive coping within older adults. We applied the principles of the Proactivity Model of Successful Aging (Kahana & Kahana, 1996, 2001; Kahana et al., 2003, 2012) to examine internal (physical health) and external (objective and subjective social status) resources. Our hierarchical regression results showed evidence for the importance of both internal and external resources on older adults' proactive coping.

Older adults with fewer chronic health conditions (i.e., better physical health) reported engaging in more proactive coping, in line with expectations from the Proactivity Model of Successful Aging where resources are essential for proactive adaptations (Kahana et al., 2012) that drive successful aging (Aspinwall, 2011). With the shift from growth-based goals to loss-based goals in later life as older adults focus their resources on maintenance of functioning (Baltes et al., 1999), physical health appears to be a critical component of this process. Because normative age-related declines in health result in greater selectivity in task engagement in later life (Hess, 2014; Hess et al., 2012) our results suggest that physical health may function as an important and necessary internal resource for older adults to be able to maintain high levels of proactive coping. Effort and attention dedicated to managing deteriorating physical health may present a barrier to maintaining efforts to meet future challenges and achieve goals. It is important to note that there were no age differences in chronic conditions in the current sample, so these results may underestimate the effects in a less select population with age-related increases in chronic conditions.

In addition to physical health as an internal resource, our results also suggest that the external resource of subjective social status matters for older adults' proactive coping. Subjective social status was more predictive than objective measures of socioeconomic status, as has been seen in previous work related to predicting outcomes in relation to health changes (Singh-Manoux et al., 2005) and mental health (Diaz et al., 2014). Our results with subjective social status within the community highlight the importance of considering forms of social inequality (Demakakos et al., 2018), as those who perceived greater social inequality also reported less proactive coping.

Our study may help to shed light on what processes are being utilized by older individuals who possess high subjective social status. Possessing a higher subjective social status may impact external resources that are available and used by older adults who seek to develop proactive coping, particularly in the case of social support, which has been shown to increase proactive coping (Bokszczanin, 2012). Previous work has shown that feelings of social exclusion are higher in an older population (Van Regenmortel et al., 2018), providing insight into the possible difficulties in building this particular resource for proactive coping.

It is important to note that the link between subjective social status and proactive coping was significant for the community comparison but not for the country comparison. That is, one's subjective social status as it relates to a more proximal, community-based comparison, predicted proactive coping, whereas subjective social status with respect to one's standing in the country did not. This may be due to the distinction in reference category. There are local variations in income required to meet acceptable standards of living and discrepancies between income earned and income available for spending or accumulated wealth (Braveman et al., 2005). Consistent with primate research where rank within hierarchies greatly influences quality of life (Sapolsky, 2005) and access to resources (Bercovitch, 1991; Munuera et al., 2018), perceptions of one's social status within their local community predicts efforts to meet future challenges and successfully adapt. In addition, older adults may face particular challenges in building both objective and subjective measures of social status. These trends could reflect the relatively high rates of poverty in older Americans (DeNavas-Walt & Proctor, 2014). Over half of adults 65 years or older receive the majority of their income in the form of fixed income from Social Security (Social Security Administration, 2016). This may limit their earning ability and may influence their objective and subjective social status. This local, more proximal focus, appears to have more predictive power for proactive coping than one's perception of status with respect to the entire country. We know from past work that community-based subjective social status is a better predictor of subjective perceptions about aging than country-based subjective social status (English et al., 2019). The expression, "keeping up with the Joneses" may also be relevant to individual-based coping behaviors.

Given our focus on subjective views in relation to others in the community, an individual's subjective social status may also be impacted by attitudes toward one's own aging. Negative attitudes toward aging are associated with increased emotional reactivity to stressors (Bellingtier & Neupert, 2018). Consistent with past work (Chen et al., 2012) using the Health and Retirement Survey with the same measures of subjective social status and the same mean age as the current sample, we found evidence of age differences in community-based subjective social status within our older adult sample, where older adults reported higher subjective social status compared to younger-old adults. This finding reinforces the developmental importance of examining subjective social status in addition to objective social status, because subjective social status captures the cumulative impact of one's shifting socioeconomic status throughout their lifetime (Chen et al., 2012). Subjective social status contains reference points that may exist outside the individual (e.g., neighbors; Andersson, 2018), but the cumulative nature of subjective social status also highlights the reference points that exist *within* the individual as they look back on their own shifting status throughout their lifetime. We did not find evidence of age differences in the *relationship* between community-based and country-based subjective social status and proactive coping when we examined interaction terms. The cumulative nature of subjective social status suggests that future work that incorporates *subjective* age (e.g., how old one feels) and aging attitudes may shed light on the mechanisms underlying these relationships.

Limitations and Future Directions

These findings are limited in their generalizability as our sample consisted of only older individuals from within the U.S. population and were mostly white. Although our participants are likely select given the online design, MTurk participants are slightly more demographically diverse than are standard Internet samples and the data obtained are at least as reliable as those obtained via traditional methods (Buhrmester et al., 2011). Future studies may benefit from investigating this relationship in other populations that include more representation of older-old adults and participants of color, which can be challenging with internet-based surveys (Corey et al., 2018). Because the data were cross-sectional and observational in nature, we cannot make causal claims about the findings. It is possible that people with higher proactive coping perceive their subjective social status to be higher, but longitudinal investigations would be well-suited to test this question. We followed the temporal ordering of the stages outlined in the theory of proactive coping (Aspinwall & Taylor, 1997) and the Proactivity Model of Successful Aging (Kahana & Kahana, 1996, 2001; Kahana et al., 2003, 2012) where resource accumulation preceded proactive coping. Future longitudinal research could examine whether changes in resources may precede changes in proactive coping, and whether these longitudinal patterns change over the lifecourse. This line of inquiry could be especially important because declines in health resources may disrupt proactive coping processes, which could then exacerbate the health-related implications of stressor exposure that tend to be most pronounced for older adults (Kiecolt-Glaser & Glaser, 2001).

Although the Proactive Coping Scale from the Proactive Coping Inventory (Greenglass et al., 1999) was designed for use across adulthood, our sample was restricted to older adults. Future work could consider creating items to capture proactive coping that may be especially relevant to older adults, such as retirement transitions.

Conclusions

Limitations notwithstanding, we document the predictive power of subjective social status within one's community (but not objective social status or subjective social status within the US) and physical health with respect to proactive coping. Because proactive coping is essential for meeting challenges and supporting successful aging, efforts to determine ways to reduce inequality and boost or maintain physical health may have important implications for the negative effects of stressors in older adults.

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Declarations

Conflict of interest The authors declare that they have no conflict of interest.

Ethical Approval All procedures were approved by the NC State University IRB (protocol # 6517).

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