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Self-Determination Theory and Well-Being in the Health Care Profession

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Abstract

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2 In the current study we predicted two forms of well-being using basic needs theory
3 (BNT). We examined domain specific (i.e., exercise) and global basic needs
4 satisfaction (e.g., competence). One-hundred and twenty-one pharmacists and nurses
5 from eight hospitals in a large Midwest inner city participated. We predicted 24 and
6 44% of the variance in mindfulness and vitality, respectively, with basic needs in
7 exercise and life in general making significant contributions. Our findings supported
8 the importance of competence satisfaction as the most critical basic need compared to
9 autonomy and relatedness. Regular physical activity alleviates negative psychological
10 states but can also potentially enhance positive mood states such as mindfulness and
11 vitality if the exercise setting promotes a need satisfaction for competence.

12 Keywords: subjective well-being, motivation, health care
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SELF-DETERMINATION THEORY AND WELL-BEING IN THE HEALTH CARE PROFESSION

Self-determination theory (SDT) has been used to guide a plethora of research in education (Ryan & Deci, 2009) and in exercise and sport settings (Hagger & Chatzisarantis, 2007). SDT has also been used to explain health behavior such as tobacco use (e.g., Williams, Gagné, Ryan, & Deci, 2002). Much of the SDT research conducted in health care settings has been conducted to explain patient behaviour, while very few researchers have used SDT to answer important questions about the well-being of health care providers, such as nurses and pharmacists working in hospitals. Research with health care workers often examines ill-being such as stress and burnout (e.g., Demerouti, Bakker, Nachreiner, & Schaufeli, 2000). For instance, Mott and colleagues conducted a national survey of pharmacists and reported that almost 70% of them experienced stress and role overload (Mott, Doucette, Pedersen, & Schommer, 2004).

Little work has been done from a positive psychology perspective to understand the factors that contribute to well-being. McCann and colleagues (2013) recently reviewed research in the health care profession geared towards a positive psychological state (i.e., resilience), yet most of the nursing research they examined was on coping, resilience, and hardiness and the ways in which nurses managed stress. No research examining or predicting positive psychological states was included. In one of the few studies on well-being, Rothmann and Malan (2011) examined predictors of work engagement. Work engagement was conceptualized as feelings of vigour and dedication towards work. Strong approach coping and low

1 avoidant coping predicted greater work engagement. To a lesser degree, low stress
2 stemming from job demands also contributed to predicting well-being. Interestingly,
3 stress from a lack of work related resources did not contribute to predicting well-
4 being.

5 To address the lack of research examining well-being in health care
6 professionals, we used SDT to predict mindfulness and vitality in nurses and
7 pharmacists. Within SDT theory there are 5 smaller theories (see Vansteenkiste,
8 Niemiec, & Soenens, 2010 for a review) and we specifically examined Basic Needs
9 Theory (BNT). BNT proposes that people have basic innate needs across three areas.
10 The first need is autonomy which refers to the need to be self-determining or in
11 charge of one's behavior. A second need is for competence and the satisfaction of
12 being efficacious and demonstrating mastery. The final need is relatedness or the
13 need to feel connected to other people. When individuals feel that their needs are met
14 in these areas they are thought to exhibit well-being. In contrast, when people's needs
15 in the three areas are thwarted their mental health is jeopardized. Individuals needs in
16 the three areas can be met through interactions with various individuals (e.g., work
17 colleagues, family, and friends) in different settings (e.g., holiday parties, work
18 meetings, dinner time). Individuals who feel that people in their life care about them
19 would be more likely to assert that their basic need for relatedness was met compared
20 to people who believed that few people in their life cared for them. Many researchers
21 have supported the importance of satisfying the three basic needs across various life
22 domains (e.g., Ryan & Deci, 2009; Ryan & Frederick, 1997).

1 In addition to the idea that people’s basic needs can be met in a global sense,
2 there are also domain specific settings and activities whereby individuals in those
3 settings may also be critical in helping to meet basic needs. One of those settings and
4 activities is physical activity (McDonough & Crocker, 2007; Wilson, Rogers,
5 Rodgers, & Wild, 2006). For example, students who perceived that their physical
6 education (PE) class met their needs for relatedness, autonomy, and competence were
7 more likely to experience increases in both physical self-concept and global self-
8 esteem compared to students with lower basic need satisfaction (Garn, McCaughtry,
9 Shen, Martin, & Fahlman, 2013). Therefore an important purpose of the current study
10 was to determine the relative importance of satisfying the three basic needs within
11 exercise settings, as well as more globally, in predicting well-being.

12 Physical activity is typically associated with reduced negative emotional states
13 (e.g., less stress), cognitive (e.g., enhanced neurocognitive function), physiological
14 (e.g., reduced heart disease) and social benefits (Friedenreich & Orenstein, 2002;
15 Sibley & Etnier, 2003; Martin & Mushett-Adams, 1996; USDHHS; 2000). Far fewer
16 researchers have examined the role of PA in satisfying the 3 SDT basic needs and
17 simultaneously linked the 3 basic needs to vitality and mindfulness. Hence the current
18 study addresses this gap in the literature.

19 We selected mindfulness to represent one type of well-being. Mindfulness,
20 while similar to consciousness, awareness and attention, is conceptualized as distinct
21 from the historical definitions of those terms and a unique quality of consciousness
22 (Brown & Ryan, 2003; Brown, Ryan, & Creswell, 2007a). Mindfulness is “a
23 receptive attention to and awareness of present events and experience” (Brown, Ryan,

1 & Creswell, 2007b, p. 212). Mindfulness is positively related to a host of positive
2 psychological qualities (i.e., open to experiences, self-esteem, pleasant affect, life
3 satisfaction, optimism, and self-actualization) while negatively related to a plethora of
4 unhealthy psychological states (i.e., depression, anxiety, hostility, rumination, stress,
5 and negative affect; Brown & Warren, 2003). Mindfulness is thought to promote
6 insight which can lead to enhanced choicefulness and equanimity reflecting a state of
7 unconditional happiness (Brown et al., 2007b). Finally, mindfulness is believed to
8 promote greater mind-body functioning via reduced stress and enhanced immune
9 function (Brown et al., 2007b). While mindfulness may lead to a variety of beneficial
10 outcomes it is also thought to be a product of other psychological conditions and
11 facilitative factors. Facilitative factors include the key constructs of BNT: autonomy,
12 competence and relatedness. For instance, Brown et al. (2007a, p. 279) suggest that
13 parental autonomy support behavior may provide a “foundational capacity” for
14 mindfulness. Furthermore, individuals who have meet their needs for autonomy and
15 competence are more likely to be intrinsically motivated which leads to heightened
16 vitality, well-being, and self-esteem which, in turn, are linked to mindfulness (Ryan
17 & Deci, 2000).

18 Subjective vitality is our second well-being measure and reflects “organismic
19 well-being” and is a positive feeling of aliveness and energy (Ryan & Frederick,
20 1997, p. 529). According to Ryan and Frederick (1997) conditions that support and
21 result in self-determination produce vitality while having autonomy undermined,
22 feeling incompetent and unloved results in reduced vitality. Both autonomy and
23 relatedness basic needs have positively predicted vitality in older individuals (Ryan &

1 Frederick, 1997). Research with adult females has shown positive links (e.g., $r = .40 -$
2 $.49$) between the three psychological needs in exercise settings and subjective vitality
3 (Gunnell, Crocker, Wilson, Mack, & Zumbo, 2013). In summary, we sought to
4 determine if basic needs satisfaction met in both general life and exercise specific
5 domains predicted two forms of well-being: mindfulness and vitality.

6 **Method**

7 **Participants**

8 Participants were 121 health care professionals (82 females and 39 males) in
9 eight hospitals in a major Midwestern city in the USA. Registered nurses ($n = 22$) and
10 pharmacist's ($n = 99$) participated and ranged in ages from 23 to 68 years ($M = 42.9,$
11 $SD = 10.5$). Most were Caucasian (82.6%), followed by Asian (6.6%), other (4.1%),
12 African American (2.5%), Arab American (2.5%), Chaldean (0.8%), and American
13 Indian (0.8%).

14 **Measures**

15 **Demographic Scale.** The demographic information provided included
16 participants occupation, gender, age, and ethnicity.

17 **Psychological Needs Satisfaction in General (PNSG).** The PNSG is a 21
18 item, 3 subscales, questionnaire originally developed by La Guardia, Ryan,
19 Couchman, and Deci (2000) and refined by Deci and colleagues (Deci, Ryan, Gagné,
20 Leone, Usunov, & Kornazheva, 2001). The subscales, number of items and example
21 questions are as follows: autonomy (7; I feel pressured in my life), competence (6; I
22 often do not feel very capable) and relatedness (8; People in my life care about me).

1 Respondent's answer 1 (not at all true) to 7 (very true) according to how generally
2 satisfied they are. Nine items are reversed scored.

3 **Psychological Needs Satisfaction in Exercise (PNSE).** The PNSE is an 18
4 item, 3 subscales, questionnaire developed by Wilson et al. (2006). The subscales,
5 number of items, and example questions are as follows: autonomy (6; I feel free to
6 exercise in my own way), competence (6; I feel capable of completing exercises that
7 are challenging to me) and relatedness (6; I feel close to my exercise companions who
8 appreciate how difficult exercise can be). Respondents answer 1 (false) to 6 (true)
9 according to how they typically feel during exercising. Wilson et al. (2006) provided
10 evidence of reliability and construct validity via two studies using confirmatory factor
11 analyses.

12 **Mindful Attention Awareness Scale (MAAS).** The MAAS is a 15 item
13 questionnaire developed by Brown and Ryan (2003). A sample question is, "It seems
14 I am "running on automatic" without much awareness of what I'm doing."
15 Respondents answer 1 (almost always) to 6 (almost never) according to how
16 frequently or infrequently they currently have had each experience. Evidence of
17 reliability and construct validity was provided via a series of 5 studies (Brown &
18 Ryan, 2003).

19 **Subjective Vitality (SV).** The SV is a 7 item questionnaire developed by
20 Ryan and Frederick (1997) that was refined to a stronger 6 item scale by Bostic,
21 Rubio and Hood (2000). An example question is, "I feel alive and vital." Respondents
22 answer 1 (not at all true) to 7 (very true) according to how each statement is true for

1 them in general in their life. Evidence of reliability and construct validity via
2 confirmatory factor analyses was established by Bostic et al (2000).

3 **Procedure**

4 We received approval from the University Internal Review Board, the
5 hospitals where our participants worked and obtained informed consent from each
6 participant. Participants were a convenience sample recruited through each hospital's
7 pharmacy and nursing department chairperson by the first author. The first author
8 visited each hospital 4-5 times to recruit participants and describe the study to
9 interested participants who were on-site during her visit. During the initial visit
10 departmental secretaries were also briefed on the nature of the study and their
11 cooperation in recruiting participants was enlisted. Interested participants completed
12 questionnaires during work breaks throughout the day and night. If the first author
13 was not present upon completion, the completed surveys were put in an envelope,
14 sealed, and returned to the departmental secretary who collected them for pickup by
15 the first author. With the departmental secretary's permission, surveys were also left
16 in qualified participant's mailbox with instructions for completion attached. Three
17 hundred questionnaires were distributed and 121 were completed for a return rate of
18 40%. Participants received no reimbursement for their participation.

19 **Data Analysis**

20 The Statistical Package for the Social Sciences 20.0 was used for all analyses.
21 Descriptive statistics, missing data analysis, internal reliability coefficients, and group
22 differences were calculated. Hierarchical multiple regression equations were run to
23 predict mindfulness and vitality. In the first step of each model, the 3 general

1 psychological needs satisfaction predictors were block entered, followed by the
2 psychological needs satisfaction in exercise predictors. This analytical strategy was
3 chosen to determine if a domain specific measure of need satisfaction (i.e., exercise)
4 would contribute to predicting additional variance in our well-being measure beyond
5 variance accounted for by the more general need satisfaction measures. If the
6 variance accounted for significantly increased in the second block this would provide
7 support for the value of exercise in contributing to mindfulness and vitality beyond
8 the value of meeting basic needs in general life domains. Furthermore, such an
9 approach would also elucidate which specific basic need (i.e., autonomy, competence,
10 and relatedness) met in general or exercise settings was most important in predicting
11 mindfulness and vitality.

12 **Results**

13 **Descriptive Statistics**

14 None of the variables had more than 5% or more missing values, and means,
15 SDs, kurtosis, skewness, and alphas can be found in Table 1. Internal consistency
16 (i.e., Cronbach's alpha; Cronbach, 1951) for all variables were adequate (i.e., $> .69$).
17 Skewness ranged from -2.25 to -.27 and kurtosis from -.29 to 5.71. With five
18 exceptions both skewness and kurtosis values fell between -1.0 and +1.0 indicative of
19 normality (Cramer, 1998). Furthermore, with large samples slight deviations from
20 normality do not make significant differences in analyses (Tabachnick & Fidell,
21 2001, p.74). We next examined for differences between nurses ($n = 22$) and
22 pharmacist's ($n = 99$) with a Multiple Analysis of Variance which was significant (F
23 $(16, 222) = 2.09, p < .01$). Follow-up univariate tests indicated only one significant

1 difference ($F(2, 118) = 6.56, p < .002$) with pharmacists being slightly higher than
2 nurses ($M's = 5.39$ vs. 5.29) for psychological need satisfaction in exercise -
3 autonomy. Given there were no differences for vitality or mindfulness and the other
4 five remaining BNT independent variables, we combined data from both groups for
5 correlation and regression analyses.

6 **Correlational and Regression Analyses**

7 Correlation and multiple regression results can be found in Table 1 and 2,
8 respectively. Multicollinearity was examined using both tolerance (.33-.74) and
9 variance inflation factors (VIF: 1.36-3.04), and were acceptable as tolerance values
10 were not under .10 and the VIF was not over 10 (Cohen, Cohen, West, & Aiken,
11 2003, p. 423-424). The regression equations predicting mindfulness ($F(6, 114) =$
12 $6.05, p < .001$) and vitality ($F(6, 114) = 15.00, p < .001$) were both significant. Model
13 summaries with R , R^2 , R^2 change, F change, and significance of F change, and
14 standardized Beta coefficients, t 's and significance levels can be found in Tables 2
15 and 3. Basic needs in general accounted for 34% of the variance and exercise specific
16 needs predicted an additional 10% of the variance in subjective vitality. For
17 mindfulness the three basic needs in general life contexts was significant accounting
18 for 20% of the variance in mindfulness. Meeting basic needs via exercise was not
19 significant. Based on significant beta-weights, it was clear that the basic need
20 satisfaction of competence in both general and exercise settings was more important
21 than autonomy and relatedness.

22 **Discussion**

23

1 The major purpose of this investigation was to predict two forms of well-
2 being (i.e., mindfulness and vitality) using SDT and more specifically, BNT. We
3 were interested in whether meeting basic needs in an exercise setting contributed
4 additional variance in predicting vitality and mindfulness, beyond that obtained via
5 basic need satisfaction met in general life settings. In general we found support for
6 our hypotheses via the simple correlations, such that nearly all relationships were
7 significant and in the expected directions with moderate-sized correlations. However,
8 of more importance for elucidating the salience of specific psychological needs
9 within a general life or exercise specific context are the multiple regression results.

10 In the equation predicting mindfulness only the block of constructs containing
11 the three basic needs in general life contexts was significant and accounted for 20%
12 of the variance in mindfulness. The addition of the second block representing the
13 meeting of basic needs via exercise settings was not significant and did not add any
14 additional variance to the equation. Within the first block of basic needs in general
15 life settings, competence, was the only construct with a significant beta-weight. Both
16 relatedness and autonomy were not significant. This set of findings indicates that
17 individuals who have their basic needs for competence satisfied (e.g., “most days I
18 feel a sense of accomplishment from what I do”) tend to report being more mindful
19 compared to participants who do not have their basic need for competence met as
20 satisfactorily.

21 In the second regression equation we sought to predict subjective vitality and
22 both blocks (i.e., general and exercise) of basic needs were significant. The initial
23 block containing the basic needs in general accounted for 34% of the variance and the

1 second exercise specific block was also significant and predicted an additional 10%
2 of the variance in subjective vitality. Researchers have found that physical activity
3 often results in people feeling that they have more energy (Martin, 2012). Because the
4 assessment of subjective vitality has questions that tap into feelings of energy (e.g., “I
5 have energy and spirit” and “I feel energized”) it is plausible that meeting basic needs
6 via exercise is more likely to contribute to subjective vitality compared to
7 mindfulness. Mindfulness questions such as, “I find myself doing things without
8 paying attention”, are less logically related to the dynamics of exercise although
9 certainly some physical activities (e.g., running) are conducive to producing flow
10 which shares some similarity with being mindful and being self-determined (Martin
11 & Cutler, 2002). The basic need for competence in both life and in exercise settings
12 was significant in predicting subjective vitality. All other basic needs in exercise and
13 in life in general did not have significant beta-weights although the basic need for
14 autonomy in exercise approached ($p < .08$) the conventional p value for significance.
15 The findings for subjective vitality indicated that the basic need for competence
16 obtained in exercise and non-exercise settings are both of value. Given that our
17 participants, if representative of state averages, were likely not very physically active
18 (USDHHS, 2000) the basic need satisfaction of competence obtained from exercise is
19 valuable given its link to subjective vitality.

20 It is also important to note our non-significant findings. The basic need for
21 relatedness via life in general or specific to exercise was mostly (5 of 6 simple
22 correlations) related to both mindfulness and subjective vitality supporting our
23 hypotheses. However, in the multiple regression equations it did not contribute to

1 predicting variance in mindfulness or vitality. While contrary to our predictions, the
2 inability of relatedness to account for variance in mindfulness or vitality is consistent
3 with a review by Wilson and colleagues (Wilson, Mack, Gunnell, Oster, & Gregson,
4 2008). Wilson et al. (2008) noted that relatedness often doesn't predict outcomes
5 when autonomy and competence needs are considered. If our participants were not
6 particularly active an inability to meet their relatedness needs specifically within an
7 exercise context seems plausible. Additionally, a socially based need like relatedness
8 is not likely to be met if someone obtains exercise in a non-group setting (e.g., going
9 for a run alone). The mean score for relatedness in exercise was the lowest of all basic
10 needs scores suggesting this explanation is plausible. Exercise as a context is most
11 likely to meet individual's needs for relatedness if exercise is a meaningful and
12 important part of their life.

13 We identified the most important basic needs, their associated contexts, and
14 their links to well-being via mindfulness and subjective vitality. However, it is also
15 important to consider the meaningfulness of our findings and effect size is one way to
16 do that. We accounted for 24% and 44% of the variance in mindfulness and
17 subjective vitality, respectively. Accounting for 44% of the variance is equivalent to a
18 Cohen's f^2 of .79 whereas 24% of the variance accounted for represents a Cohen's f^2
19 of .32 (Soper, 2013). Based on Cohen's (1988) convention of .02, .15, and 0.35 for
20 small, medium and large effect sizes, both R^2 values approximate large effect sizes
21 (Fritz, Morris, & Richler, 2012). In summary, we obtained moderate support for the
22 value of basic needs theory in predicting mindfulness and vitality with the basic need
23 for competence standing out as particularly important. Both general life and exercise

1 specific domains were of value in meeting our participant's basic needs. Regular
2 physical activity (PA) can help health care professionals attenuate common negative
3 psychological states (e.g., reduced stress, depressed mood). Moreover, the current
4 findings suggest that exercise settings, as well as non-exercise environments, can
5 contribute to increased positive psychological states such as vitality and mindfulness,
6 when those settings are structured so that they meet participants needs for
7 competence.

8 Like most research our study has both strengths and limitations. Research
9 using a positive psychology approach with health care workers is rare and thus adds
10 to the extant literature. The highly specific sample of health care professionals
11 working in large inner city and suburban hospitals likely makes our findings sample
12 specific. Some of our speculations revolved around our participant's level of physical
13 activity. Future researchers should consider assessing physical activity levels in order
14 to link it with basic need satisfaction. There are suggestions that some sport settings
15 can promote social comparison of physical abilities and body image in ways that
16 might thwart basic need satisfaction. Similarly, exercise settings can also thwart
17 individuals basic psychological needs (Bartholomew, Ntoumanis, Ryan, &
18 Thøgersen-Ntoumani, 2011). As Gunnell et al. (2013) suggest, not meeting one's
19 basic needs is not synonymous with having those needs thwarted. Hence, assessing
20 basic need satisfaction and if particular settings such as the work place or exercise
21 thwart those needs is another avenue for future investigation.

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Table 1

Means, Standard Deviations, Ranges, Skewness, Kurtosis, Alpha's and Pearson Product-moment Correlations for all Variables.

Variable	1	2	3	4	5	6	7	8
1. PNSG-A	-							
2. PNSG-C	.61	-						
3. PNSG-R	.73	.53	-					
4. PNSE-A	.33	.24	.13	-				
5. PNSE-C	.33	.32	.22	.54	-			
6. PNSE-R	.02	.24	.16	.28	.38	-		
7. SV	.47	.56	.36	.40	.48	.18	-	
8. MAAS	.31	.44	.22	.25	.30	.25	.XX	-
Mean	5.34	5.60	5.80	5.34	4.56	4.27	5.11	4.47
SD	0.84	0.85	0.79	0.97	1.25	1.44	1.10	0.75
Skewness	-.99	-1.06	-.59	-2.25	-.96	-.61	-.84	-0.27
Kurtosis	1.99	2.28	.41	5.71	.48	-.38	.49	-.29
Alphas	.75	.69	.81	.98	.97	.97	.92	.89

Note. PNSG-A = Psychological Needs Satisfaction in General – Autonomy Subscale; PNSG-C = Psychological Needs Satisfaction in General – Competence; PNSG-R = Psychological Needs Satisfaction in General – Relatedness Subscale; PNSE-A = Psychological Needs Satisfaction in Exercise – Autonomy Subscale; PNSE-C = Psychological Needs Satisfaction in Exercise – Competence; PNSE-R = Psychological Needs Satisfaction in Exercise – Relatedness Subscale; SV = Subjective Vitality; MAAS = Mindful Attention Awareness Scale

Note. $r > .25 = p < .001$; $r > .21 = p < .01$; $r > .16 = p < .05$.

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Table 2

*Multiple regression results predicting Mindfulness:**Model Summary*

Step	Variable	R	R ²	F	df	p <	ΔR ²	F change	Sig of F change
1	PNSG	.45	.199	9.71	3,117	.001*	.199	9.71	.001*
2	PNSE	.49	.242	6.05	6,114	.001*	.042	2.12	.102

Note. PNSG = Psychological Needs Satisfaction in General; PNSE = Psychological Needs Satisfaction in Exercise

*Multiple regression results predicting Mindfulness:**Coefficients*

Step	Variable	B	SE B	β	t	p
1	PSNG-A	.10	.12	.11	.86	.392
	PSNG-C	.37	.09	.42	3.94	.001*
	PSNG-R	-.08	.12	-.08	-.69	.490
2	PSNG-A	.10	.13	.11	.76	.450
	PSNG-C	.31	.10	.35	3.22	.002*
	PSNG-R	-.09	.12	-.09	-.76	.451
	PSNE-A	.04	.08	.05	0.54	.592
	PSNE-C	.06	.06	.10	0.99	.326
	PSNE-R	.07	.05	.12	1.30	.196

Note. PSNG-A = Psychological Needs Satisfaction in General – Autonomy Subscale; PSNG-C = Psychological Needs Satisfaction in General – Competence; PSNG-R = Psychological Needs Satisfaction in General – Relatedness Subscale; PNSE-A = Psychological Needs Satisfaction in Exercise – Autonomy Subscale; PNSE-C = Psychological Needs Satisfaction in Exercise – Competence; PNSE-R = Psychological Needs Satisfaction in Exercise – Relatedness Subscale; SV = Subjective Vitality; MAAS = Mindful Attention Awareness Scale

Table 3

*Multiple regression results predicting Vitality:**Model Summary*

Step	Variable	R	R ²	F	df	p <	ΔR ²	F change	Sig of F change
1	PNSG	.58	.339	20.00	3,117	.001*	.339	20.00	.001*
2	PNSE	.66	.441	15.07	6,114	.001*	.102	06.96	.001*

Note. PNSG = Psychological Needs Satisfaction in General; PNSE = Psychological Needs Satisfaction in Exercise

*Multiple regression results predicting Vitality:**Coefficients*

Step	Variable	B	SE B	β	t	p
1	PSNG-A	.30	.16	.23	1.91	.058
	PSNG-C	.57	.12	.44	4.60	.001*
	PSNG-R	-.05	.15	-.04	-.35	.728
2	PSNG-A	.09	.16	.07	.56	.579
	PSNG-C	.51	.12	.40	4.27	.001*
	PSNG-R	.05	.15	.03	.31	.754
	PSNE-A	.17	.10	.15	1.79	.077
	PSNE-C	.23	.08	.27	2.98	.004*
	PSNE-R	-.05	.06	-.07	-.87	.389

Note. PSNG-A = Psychological Needs Satisfaction in General – Autonomy Subscale; PSNG-C = Psychological Needs Satisfaction in General – Competence; PSNG-R = Psychological Needs Satisfaction in General – Relatedness Subscale; PNSE-A = Psychological Needs Satisfaction in Exercise – Autonomy Subscale; PNSE-C = Psychological Needs Satisfaction in Exercise – Competence; PNSE-R = Psychological Needs Satisfaction in Exercise – Relatedness Subscale; SV = Subjective Vitality; MAAS = Mindful Attention Awareness Scale