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## WELL-BEING IN AN ADULT SWEDISH POPULATION

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**ABSTRACT.** *Objectives:* The aim of this study was to see if earlier findings about factors associated with well-being could be replicated in a large population-based sample in Sweden. To the best of our knowledge, no research on well-being has been conducted on such a large population in a country, which by most standards is regarded as one of the most fortunate in the world. With its economic wealth and highly developed social welfare and health care system, Sweden is a country where the conditions for a high level of well-being would appear to be met. *Methods:* 10,441 randomly selected Swedish citizens, aged between 20 and 64 years, living in Stockholm County, completed a questionnaire covering issues such as demographics, social network and psychological well-being. The data were collected during the years 1998–2000. *Results:* Male gender, greater age, cohabiting, good childhood conditions, support from friends, sound financial situation and absence of negative life events were positively associated with well-being and explained 20% of the variance. *Conclusion:* The findings replicated earlier studies. Factors associated with well-being seem to remain the same, and are still explaining only a small part of the total variance, despite different measurements, time, sample sizes or country of origin. Therefore, research on well-being needs to take a new turn, by placing less focus on external factors and more focus on the internal factors, such as a person's personality and coping strategies.

**KEY WORDS:** well-being, population-based

### INTRODUCTION

Since the prevalence of mental health problems is high its of importance to find factors that could help to improve a persons well-being (Regier et al., 1993; Jorm et al., 1997; Andrews and Henderson, 2000). Although the literature on well-being has developed during the past three decades, factors strongly affecting well-being have still not been

identified. This motivates researchers to continue to explore what underlies the process of well-being (Diener et al., 1999). Even though factors associated with well-being can vary across cultures (Headey and Wearing, 1992; Diener and Diener, 1995; Suh et al., 1998; Furnham and Cheng, 1999), the predictors of well-being account only for a small part of the total variance. So far, research has shown that factors that in some way are related to well-being are, for example, demographic and socio-economic variables, social network and life events. Of these, some have stronger associations with well-being (i.e., marriage, social network, life events) and others weaker, such as, age, sex, and socio-economic status (Larson, 1978; Stock et al., 1983; Diener, 1984; Haring et al., 1984; Headey et al., 1984; Okun et al., 1984; Haring-Hidore et al., 1985; Argyle, 1987; Okun and Stock, 1987; Myers and Diener, 1995; Suh et al., 1996; Diener et al., 1999; Hillerås et al., 2001; Gecková et al., 2003). Although several examples of well-designed studies can be found in earlier research, its limitations are that the results and instruments are now quite old and include narrow samples (Bowling, 1991). Furthermore, the studies are mostly based on samples in the USA. The aim of the present study was to examine if earlier findings could be replicated in a population-based sample of 10,311 persons in Sweden. To the best of our knowledge, no research on well-being has been conducted on such a large population in a country, which by most standards is regarded as one of the most fortunate in the world. With its economic wealth and highly developed social welfare and health care system, Sweden is a country where the conditions for a high level of well-being would appear to be met.

## DATA AND METHODS

### *Definition of Subjective Well-being (SWB)*

There are various definitions of subjective well-being. Despite the lack of agreement, it is common to define SWB as “a persons evaluative reactions to his or her life – either in terms of life satisfaction (cognitive evaluations) or affect (ongoing emotional reactions)” (e.g., Andrews and Mckennell, 1980; Diener and Diener, 1995, p. 653). In the current study we used the WHO (Ten) well-being index, which includes both cognitive evaluations and emotions (Bech et al., 1996).

*Subjects*

The present study used data from the PART study. A random sample of 19,742 Swedish citizens aged between 20 and 64 years, living in Stockholm County, was included in this study. Of the 19,742 who met the inclusion criteria, 10,441 agreed to participate (response rate 53%). The participants had a higher income and higher education, were more often females, and born in Sweden, than those who did not participate. The mean age of the participants was 41.3 (SD 12.5) years and 55.4% were females. Only those who answered all ten questions in the WHO (10) well-being index (Bech et al., 1996) were included, thus 10,311 participated in the study.

*Procedure*

The participants received a 21-page questionnaire by post. The first part comprised questions regarding demographics, social network and life events. The second part comprised questions regarding psychological well-being, health status and symptoms of psychiatric disorders. Each instrument within the questionnaire was preceded by detailed instructions on how to answer the questions. The internal dropout rate was low since the questionnaire was completed with a telephone interview or by post in case of missing answers. Further details about the PART study are published elsewhere (Airaksinen et al., 2004).

The Ethical Committee, Karolinska Institutet, Stockholm, approved the study (Dnr 96-260 and 97-313).

*Measures*

The following variables were used in the current study:

*Economics* were assessed by the question; "Would you be able to obtain 14,000 Sek (approximate 2000 US dollars) within a week if you had to?" The item was assessed on a four point scale from "yes, certainly" (1) to "no" (4).

*Age* was divided into three age groups, 20–34 years, 35–49 years and 50–64 years.

*Support from friends.* This item is part of a scale developed by Unden & Orth-Gomèr (1989) and was presented as a statement

“Beside from my family at home, there are persons that I can turn to, and easily meet, that really can help me when I’m having difficulties”. The item was assessed on a four-point scale, ranging from “definitely” (1) to “definitely not” (4).

*Measure of well-being.* Well-being was assessed using the WHO (Ten) well-being index (Bech et al., 1996). This scale includes ten items with a reference period of one week. Four items cover symptoms of depression, anxiety and vitality (emotions), and the remaining six questions concern various aspects of coping skills and adjustment to life (cognitive evaluations). The items were assessed on a four point scale from “never” (0) to “always” (3). The scores range from 0 to 30. In the present study the scale had a Chronbach  $\alpha$  of 0.91.

*Childhood conditions.* was measured by the question; “Have there been any serious problems in your family while growing up?” The question was assessed on a three point scale from “no, nothing worth mentioning” (1) to “yes, seriously and/or long periods of problems” (3).

*Cohabitants.* The respondents reported whether they “lived alone” (1) or “lived with a partner” (2).

*Negative life events.* The respondents reported whether any of 21 events had happened to them in the past 12 months (e.g., death of spouse, conflicts, illness).

*Foreign Background.* Those who are born in Sweden were coded (1) and those born outside Sweden were coded (2).

*Statistical analysis.* Analysis of variance (ANOVAs) and *t*-tests were performed in order to determine differences between well-being and various characteristics. A 95% confidence interval (CI) was used. In addition, multivariate linear regression analyses were performed in order to identify and quantify predictors of well-being. The associations were expressed in Beta standard. The significance level was set at  $p < 0.001$ .

## RESULTS

All demographic characteristics were correlated with well-being in some way, as shown in Table I. Cohabitant was associated with well-being ( $t(9674) = 17.69$ ,  $p < 0.001$ ), due to higher scores among those

living with a partner. Persons born in Sweden showed a higher degree of well-being than those born in a foreign country ( $t(10301) = 5.54$ ,  $p < 0.001$ ). Men scored higher on the well-being scale than women ( $t(10309) = 10.25$ ,  $p < 0.001$ ). Those with a higher education had a greater degree of well-being ( $F(2, 10308) = 12.30$ ,  $p < 0.001$ ) and persons between 50 and 64 years scored higher on the well-being scale than those in the younger age groups ( $F(2, 10308) = 66.18$ ,  $p < 0.001$ ).

As shown in Table II, no financial problems ( $F(3, 10294) = 278.44$ ,  $p < 0.001$ ), social support ( $F(3, 10292) = 304.89$ ,  $p < 0.001$ ), good childhood conditions ( $F(2, 10287) = 214.12$ ,  $p < 0.001$ ) and absence of negative life events ( $t(10306) = 21.79$ ,  $p < 0.001$ ) were all associated with a higher level of well-being.

TABLE I

Means ( $M$ ) and confidence intervals (CI) between various characteristics and well-being, as shown by  $t$ -tests and ANOVAs

Characteristics	Well-being scale (0–30p)		
	$n$	$M$	CI (95%)
<i>Cohabitant</i>			
Yes	6671	18.0	2.1–2.6*
No	3005	15.7	
<i>Gender</i>			
Male	4594	17.9	1.0–1.5*
Female	5717	16.6	
<i>Age groups</i>			
20–34 years	3718	16.7	16.5–16.9**
35–49 years	3318	17.7	16.5–16.9
50–64 years	3275	18.2	18.0–18.4
<i>Foreign background</i>			
Yes	1080	16.2	0.7–1.6*
No	9233	17.3	
<i>Education</i>			
Primary	3260	16.9	16.7–17.2**
Secondary	4068	17.0	16.9–17.2
University	2983	17.6	17.4–17.8

\* 95% confidence interval of the mean differences.

\*\* 95% confidence interval for mean.

The result from the multiple regression showed that male gender, cohabiting, greater age, sound financial situation, absence of negative life events, support from friends and good childhood conditions were positively correlated with well-being, and this model explained 20% of the variation. Since country of origin and education were not significantly correlated with well-being, another linear regression was performed in which these variables were excluded. Results from the regression showed that all factors were positively correlated with well-being and that the model still explained 20% of the variation, as shown in Table III. Support from friends explained most of the variance.

## DISCUSSION AND CONCLUSION

In the current study we analysed the associations between well-being and various characteristics. The main aim was to examine if earlier research could be replicated in a large population-based sample in Sweden. Our results showed that gender, cohabiting, age, social network, financial situation, childhood conditions and life events were all correlated with well-being, as in line with earlier research (Larson, 1978; Stock et al., 1983; Haring et al., 1984; Headey et al., 1984; Okun et al., 1984; Haring-Hidore et al., 1985; Okun and Stock, 1987; Myers and Diener, 1995; Suh et al., 1996; Diener et al., 1999; Hillerås et al., 2001; Gecková et al., 2003). In addition, our variables did not explain much of the variance in well-being in total and this finding also replicates earlier findings (e.g., Diener et al., 1999). As noted, researchers have found a number of factors that are associated with well-being (e.g., gender, age, cohabiting, financial situation, childhood conditions, life events and social network). Our result showed that men had slightly higher well-being than females, and other studies have found similar results (e.g., Haring et al., 1984; Kyeong-Ho Cha, 2003). On the other hand, some studies have shown the opposite, but the gender differences usually disappeared when other demographics were controlled (Larson, 1978; Shmotkin, 1990), regardless, in most studies there have been non, or fairly small differences in all age groups (e.g., Stock et al., 1983; Diener, 1984; Okun and Stock, 1987; Headey and Wearing, 1992; Myers and Diener, 1995; Diener et al., 1999). Furthermore, we found that the older participants reported higher well-

TABLE II  
Means ( $M$ ) and confidence intervals (CI) between various characteristics and well-being, as shown by  $t$ -tests and ANOVAs

Independent variables	Well-being scale (0–30p)		
	$n$	$M$	CI (95%)
<i>Economics</i>			
Would you be able to obtain 14,000 SEK (approximate 2000 US dollars) within a week if you had to?			
Yes, certainly	6540	18.3	18.1–18.4*
Yes, probably	2241	16.3	16.1–16.5
No, probably not	841	14.3	13.9–14.7
No	676	13.0	12.5–13.5
<i>Support from friends</i>			
Besides from my family at home, there are persons that I can turn to, and easily meet, that really can help me when I have difficulties			
Definitely	6032	18.4	18.3–18.6*
Quite true	2993	16.3	16.1–16.5
Not so true	862	13.8	13.4–14.2
Definitely not	409	12.5	11.7–13.2
<i>Negative life events</i>			
No	2761	19.3	2.6–3.1**
Yes	7547	16.4	

TABLE II  
Continued

Independent variables	Well-being scale (0–30p)	
	<i>n</i>	<i>M</i> CI (95%)
<i>Childhood conditions</i>		
Have there been any serious problems in your family while growing up?		
No, nothing worth mentioning	6588	18.0 17.9–18.2*
Yes, easy and/or short periods	2454	16.2 16.0–16.4
Yes, seriously and/or long periods	1248	14.7 14.3–15.0

\* 95% confidence interval for mean.

\*\* 95% confidence interval of the mean differences.



TABLE III  
Multiple regression analyses predicting well-being

Independent variables	Standardized $\beta$ 's and the adjusted $R^2$
Male gender	0.092*
Cohabiting	0.111*
Greater age (50–64 years)	0.082*
Good childhood condition	0.109*
Support from friends	0.258*
Financial problems	-0.142*
Absence of negative life events	0.149*
Adjusted $R^2$	(0.20)

\* $p < 0.001$ .

being than the younger ones. Several studies with representative samples have reported that old people tend to be more satisfied with life than younger people (Argyle, 1987; Headey and Wearing, 1992; Diener et al., 1999). People who were living together with a partner reported higher well-being than those living alone, as in a number of other studies (e.g., Argyle, 1987; Headey and Wearing, 1992; Myers and Diner, 1995). The direction of the association between marital status and well-being are discussed, since there is evidence that happy and well-adjusted people are more likely to marry and continue to stay married (e.g., Mastekaasa, 1992). The participants who had a sound financial situation had slightly higher well-being than persons with less sound financial situation. Earlier research has shown that persons with higher socio-economic status (and even extremely wealthy persons) do not differ much in well-being from those with lower socio-economic status (e.g., Diener et al., 1985; Diener et al., 1999). Furthermore, our results showed that persons who reported good childhood conditions had higher well-being than those who reported problems during childhood, as in earlier research (e.g., Bell and Belicki, 1998). When it comes to life events our result showed that persons with absence of negative life events scored higher on the well-being scale than those who had experienced negative life events during the last 12 months. To which extent life events affect well-being are still not quite clear. For example, some researchers have found that a persons characteristics determine a persons well-being rather than the event itself (Costa McCrae, 1980; Diener et al., 1992). Another finding

in our study was that support from friends was positively associated with well-being. A number of studies have shown that social support improves well-being and that low social support is associated with worse health (Cassel, 1976; Cobb, 1976; Headey et al., 1984; Gecková et al., 2003). Before concluding, it is necessary to point out the low participation rate of 53%. In other studies on health outcomes in Stockholm County aimed at random population samples; the participation is approximately 60–65%. We regard this difference to be due to the personal and sensitive nature of the questionnaire, since many potential subjects refused participation for this reason. However, it is unlikely that the dropout rate would have affected the results in this study, since there is no reason to believe that the relationships between the independent and dependent variables would be different among participants and non participants. Since this study has a cross-sectional design, causality can not be ascertained.

In conclusion, one important contribution of this paper is that correlates of well-being, seem to remain the same, and are still explaining only a small part of the total variance, despite different measurements, time, sample sizes or country of origins. Therefore, we are convinced, and are in agreement with Diener et al. (1999), that research on well-being needs to take a new turn. This means placing less focus on external factors and more focus on the internal factors, such as a person's personality and coping strategies, in order to find out more about what underlies the process of subjective well-being.

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