2001-47

Reprinted from: Women & Health 2001; 32(4): 17-32.

Measuring Women's Psychological Well-Being in Indonesia

Notice: This Material May Be Protected by Copyright Law (Title 17 U.S. Code).

Elizabeth Eggleston, DrPH
Emelita L. Wong, DrPH
Karen Hardee, PhD
Irwanto, PhD
E. Kristi Poerwandari, MA
Lawrence J. Severy, PhD

Notice: This Material May Be Protected by Copyright Law (Title 17 U.S. Code).

ABSTRACT. This paper describes the development of a set of measures of women's psychological well-being in Indonesia, identifies meaningful clusters of women based on the well-being measures, and explores the sociodemographic factors associated with these well-being clusters. This is the first published study to measure psychological well-being among a large sample of Indonesians and the first to focus on women in that country. Rather than use standard measures of psychological well-being developed in Western nations and untested among Asian women, focus groups were conducted to develop an understanding of Indonesian women's perceptions of their own well-being. The focus group findings were used to develop 41 questionnaire items to measure psychological well-being, and the questionnaire was administered to 796 women in

Elizabeth Eggleston is affiliated with the Population Leadership Program, Berkeley, CA, formerly Family Health International, Research Triangle Park, NC. Emelita L. Wong is affiliated with Family Health International, Research Triangle Park, NC. Karen Hardee is affiliated with The Futures Group International, Washington, DC, formerly Family Health International, Research Triangle Park, NC. Irwanto is affiliated with the Centre for Societal Development Studies, Atma Jaya Catholic University, Jakarta. E. Kristi Poerwandari is affiliated with the Women's Studies Program, University of Indonesia, Jakarta. Lawrence J. Severy is affiliated with the Department of Psychology, University of Florida, Gainesville, FL.

Address correspondence to: Elizabeth Eggleston, Population Leadership Program, 2168 Shattuck Avenue, Suite 300, Berkeley, CA 94704 (E-mail: eeggleston@hotmail.com).

© 2001 by The Haworth Press, Inc. All rights reserved.

Sumatra and Lampung. Factor analysis reduced the well-being variables into five factors accounting for 45% of the total variance: (1) general negative feelings: (2) satisfaction with relationships and ability to control fertility; (3) satisfaction with economic, family and personal conditions; (4) negative feelings regarding marital and domestic issues; and (5) ability to pursue activities outside the home. We constructed five scales based on these factors. Based on their scores on these scales, women grouped into three clusters differentiated by their scores on four of the five scales. Low levels of psychological well-being were associated in bivariate analyses with: (1) rural residence: (2) young age (under age 30); (3) marriage before age 20; (4) low socioeconomic status; and (5) lower educational attainment. *[Article copies available for a fee from The Haworth Document Delivery Service: 1-800-342-9678. E-mail address: <getinfo@haworthpressinc.com> Website: <http://www.HaworthPress.com> © 2001 by The Haworth Press, Inc. All rights reserved.]*

KEYWORDS. Psychological well-being, women, Indonesia

INTRODUCTION

Psychological well-being, with a focus on both general well-being and specific domains of life such as family, housing, employment and income, has long been a topic for scientific study (Andrews and Robinson, 1991). Recently this topic has become even more popular and known as the study of positive psychology (Seligman and Csikszentmihalyi, 2000). As Diener (2000) argues, subjective well-being is a main component of positive psychology and is heavily influenced by cultural context. In a review by Ryan and Deci (2000: 68), it is concluded that "factors have been examined that enhance versus undermine intrinsic motivation, self-regulation, and well-being." However, an extensive literature search located only a small number of published studies of psychological well-being conducted in developing countries (Schwarzer et al., 1997; Lee, Kim and Shinn, 1982; Devins et al., 1997; Cantril, 1967), and few of these focused on women.

The standardly used measures of psychological well-being were developed largely in Western nations among persons of European descent and may not be appropriate for measuring well-being in Asian cultures. In many Asian countries, such as Indonesia, sociocultural norms as well as government rhetoric and programs stress the importance of collective rights and needs over those of individuals to a greater extent than in

Western cultures (S
Asian and Western
vidualism versus c
larger collective, a
1998; Hofstede, 19
the link between se
being found in We
non-Western culture
els of perceived per
sonal control has l
Asians (Sastry and

The purpose of t
measures of wome
identify meaningful
sures. We expected
an individualistic c
psychological well-
ceptions of their fa
their family memb
demographic factor
study represents the
among a large samp
that country. The o
well-being in Indon
in scope and gener
sample of university
of Indonesians have
tremely small propo
ment of Indonesia,
general well-being (

The data for this
effects of Indonesia
ical well-being (Irw
study because it has
late 1960s, that targ
objective of Indones
to reduce populatio
goal of the program
(Sciortino, 1998; W

3

Western cultures (Sciortino, 1998). Previous research has indicated that Asian and Western cultures tend to differ on several dimensions: individualism versus collectivism, responsibility for self versus for the larger collective, and mastery versus submission (Sastry and Ross, 1998; Hofstede, 1980; Hofstede, 1984; Schwartz, 1995). For example, the link between sense of personal autonomy and psychological well-being found in Western populations may be nonexistent or weaker in non-Western cultures. A recent study found that Asians have lower levels of perceived personal control than non-Asians and that sense of personal control has less of an impact on psychological well-being for Asians (Sastry and Ross, 1998).

The purpose of this paper is to describe the development of a set of measures of women's psychological well-being in Indonesia and to identify meaningful clusters of women based on the well-being measures. We expected that while psychological well-being is considered an individualistic construct in Western societies, Indonesian women's psychological well-being would be to some extent shaped by their perceptions of their family's well-being and by their relationships with their family members and communities. We also explore the sociodemographic factors associated with these well-being clusters. This study represents the first attempt to measure psychological well-being among a large sample of Indonesians and the first to focus on women in that country. The only two previous published studies of aspects of well-being in Indonesia located in a literature search were very limited in scope and generalizability. One examined self-efficacy among a sample of university students (Schwarzer et al., 1997). Just 17 percent of Indonesians have at least a senior high school education, and an extremely small proportion receive a post-secondary education (Government of Indonesia, 1998). The other used only a one-item measure of general well-being (Bahar et al., 1992).

The data for this study were collected as part of a larger study of the effects of Indonesia's family planning program on women's psychological well-being (Irwanto et al., 1997). Indonesia was chosen for the study because it has a strong family planning program, initiated in the late 1960s, that targets women almost exclusively. Although the stated objective of Indonesia's family planning program has traditionally been to reduce population growth, the government now stresses that a major goal of the program is to improve the well-being of women and families (Sciortino, 1998; Wilopo, 1994).

4

DATA AND METHODS

A total of 796 women from two Indonesian provinces, Lampung and South Sumatra, participated in the study. All participants were of reproductive age (15-49), were currently or previously married, and had at least one child. Employees of the National Family Planning Coordinating Board (BKKBN) were excluded from study participation. In each province, a rural and an urban study site were selected purposively. Then, two neighborhoods (*kelurahan*) were selected from each site, for a total of eight neighborhoods. In Lampung, 400 women (200 from the urban site and 200 from the rural site) were selected randomly from the neighborhoods, using census information provided by local government officials. In South Sumatra, researchers also attempted to select women randomly. However, due to extensive migration, the large majority of selected women no longer lived at the addresses listed in the census data. Therefore, quota sampling was used to select respondents, 200 urban and 200 rural, from the randomly selected neighborhoods in that province. In both Lampung and South Sumatra, only one woman per household was selected. Although 800 selected women agreed to participate in the survey, four did not complete the survey questionnaires; they repeatedly reported being "too busy" with housework to answer questions when interviewers visited their homes. This study's response rate of 99.5% is similar to the 99.1% household response rate of the 1994 Indonesia Demographic and Health Survey (Central Bureau of Statistics et al., 1995).

Because there were no published reports studying women's psychological well-being in Indonesia, nor had any of the more standard scales ever been validated in Indonesia, we decided not to use these standard measures. We expected that Indonesian women might assess their personal well-being differently than the Western populations for whom standard scales of well-being were developed. As a first step, we conducted eight focus groups with a total of 73 women in Lampung and South Sumatra to develop an understanding of Indonesian women's daily life experiences and perceptions of their own well-being. Focus group participants were recruited by the study's field coordinator, with assistance from local leaders and staff from the village authorities. To minimize the social desirability of results, the local coordinators were encouraged to recruit at least half the participants from persons not recommended by government officers. Focus group participants were of the same age range and socioeconomic status as women in the survey, but no focus group participants were included in the survey sample. Par-

ticipants gave th
confidentiality
were conducted
The discussions
erators, and sub
analysis was co
reviewed the wr
that emerged an

Based on the
41 questionnair
psychological v
general life satis
and negative f
sociodemograp
tive history, wo
services.

Female inter
administered th
ducted in the lo
December, 199
conducted in th
of the purpose,
terview techniq
interviews in th
a physician's p
that was follov
women's home
of the survey w
family plannin
and their famili
conducted by a
and that their r
45 minutes on
not paid for the

The sample
who answered
being. Twenty
the study samp
considered im
However, biva
were more like

5

ticipants gave their verbal consent to participate and were assured of the confidentiality of all that would be said. The focus group discussions were conducted in the local languages, and each lasted about one hour. The discussions were tape-recorded, transcribed verbatim by the moderators, and subsequently translated into Indonesian. The focus group analysis was conducted by a team of two Indonesian researchers who reviewed the written transcripts transcripts extensively to identify themes that emerged among a majority of the groups.

Based on the focus group results and previous research in the field, 41 questionnaire items were developed to measure Indonesian women's psychological well-being. The items were grouped into five domains: general life satisfaction, relationships, role fulfillment, personal matters and negative feelings. The questionnaire also collected background sociodemographic information and asked women about their reproductive history, work experience, family relationships, and use of health services.

Female interviewers, recruited from the same region as respondents, administered the survey questionnaire in face-to-face interviews conducted in the local languages to all study participants between June and December, 1996. Interviewers participated in four-day training sessions conducted in their respective provinces. The training included a review of the purpose, design and methodology of the study; instruction in interview techniques; discussion of each questionnaire item; and practice interviews in the field. In addition, each group of interviewers attended a physician's presentation of an overview of family planning methods that was followed by a discussion session. Interviews took place at women's homes, and interviewers explained to women that the purpose of the survey was to learn about Indonesian women's experiences with family planning methods and services and their happiness with their and their families' lives. Women were also told that the study was being conducted by a private university, not by the Indonesian government, and that their responses would remain confidential. Respondents took 45 minutes on average to complete the survey questionnaire and were not paid for their participation.

The sample for this study included the 71 percent of women (n = 562) who answered all 41 questionnaire items related to psychological well-being. Twenty-nine percent of women (n = 234) were excluded from the study sample because they did not answer one or more items. We considered imputing mean values for items with missing responses. However, bivariate analyses indicated that divorced or widowed women were more likely than currently married women to be excluded. These

6

women did not answer the questions pertaining to spousal relationships, and imputing values for those items likely would have biased our results. Women excluded from the study also tended to be older (aged 30 and over) and to live in urban areas. Other sociodemographic variables examined were not significantly associated with exclusion from the study population in bivariate analyses. These included province, husband's age, age at marriage, education, husband's education, socioeconomic status, work status, husband's income, and duration of residence in study site. In multivariate analyses, only education was associated with exclusion from the study sample, with high school graduates less likely to be excluded.

Women responded to all questionnaire items on ordinal scales. Some items had four response categories while others had three. We recoded all variables so that each had three levels of response, with 1 indicating low and 3 indicating high levels of perceived well-being. All variables were then standardized by subtracting the mean from the raw value and dividing the difference by the standard deviation, so that each had a mean and standard deviation of zero and one, respectively.

A factor analysis was performed in order to reduce the 41 well-being variables down to a smaller set of factors representing the underlying dimensions of the original variables. First, we examined the correlation matrix for the 41 well-being variables to evaluate the appropriateness of the factor model. The Bartlett test of sphericity allowed us to reject the null hypothesis that the correlation matrix was unsuitable for factor analysis, and the Kaiser-Meyer-Olkin statistic indicated sampling adequacy. Next, we used the principal components method of factor extraction with varimax rotation to form the factors. We then examined the eigen values associated with each factor and the scree plot of these values. Variables with factor loadings of at least 0.4 were included into a factor.

Next, a formal scaling analysis was performed, assessing overall reliability of each resultant scale and the role each variable played in the scale. Each scale consisted of the sum of the raw values of the variables within the factor that had loadings of 0.4 or higher. We calculated Cronbach's alpha and split-half coefficients to assess the reliability of the scales. As both Shaw and Wright (1967) and Robinson, Shaver and Wrightsman (1991) report that the average alpha in all published scales is approximately .73, we consider any alpha over .80 as more than acceptable.

Using both the raw and standardized forms of the five scales corresponding to the five factors, we classified women into three clusters us-

ing the SPSS clus
by clusters and co
sures of agreeme
scales and cluster
Finally, we co
tween selected so
using chi-square t

Sample Characte

Table 1 shows
sample. The samp
Sumatra and Lam
than in urban area
(data not shown),
der. The mean ag
most women (66
low educational l
elementary schoo
mentary school. F
for income, while

Factor Analysis

Factor analysis
together, these fa
Because the scree
five factors could
factor models. Fir
factors, we fitted
ables. Factor 1 m
variables loaded
tion with relations
ability to control
with economic, fa
4 is negative feel
ables), and Factor
variables). These

7.

pousal relationships.
have biased our re-
to be older (aged 30
mographic variables
exclusion from the
uded province, hus-
education, socioeco-
luration of residence
ition was associated
chool graduates less

ordinal scales. Some
d three. We recoded
se, with 1 indicating
-being. All variables
m the raw value and
, so that each had a
ectively.
ce the 41 well-being
nting the underlying
nined the correlation
e appropriateness of
owed us to reject the
nsuitable for factor
cated sampling ade-
hod of factor extrac-
e then examined the
ree plot of these val-
were included into a

ssessing overall reli-
riable played in the
lues of the variables
gher. We calculated
ess the reliability of
obinson, Shaver and
all published scales
.80 as more than ac-

he five scales corre-
nto three clusters us-

ing the SPSS cluster analysis module. We generated plots of the scales by clusters and conducted bivariate analyses using kappa-statistic measures of agreement to assess the importance of different numbers of scales and clusters, and the use of raw or standardized scores.

Finally, we conducted bivariate analyses of the relationships between selected sociodemographic variables and the well-being clusters using chi-square tests of association.

RESULTS

Sample Characteristics

Table 1 shows the sociodemographic characteristics of the study sample. The sample was split fairly evenly between residents of South Sumatra and Lampung, and slightly more women lived in rural areas than in urban areas. The mean age of women in the study was 31.3 years (data not shown), and about 41 percent of the women were age 30 or under. The mean age at marriage was 18.4 years (data not shown), and most women (66 percent) had married before age 20. Most women had low educational levels; 19 percent were uneducated or had not finished elementary school, and 42 percent had left school after completing elementary school. Forty-six percent of women reported that they worked for income, while 54 percent were homemakers.

Factor Analysis

Factor analysis yielded nine factors with eigen values of at least one; together, these factors accounted for 57.6 percent of the total variance. Because the scree plot of the eigen values indicated that either four or five factors could be optimally retained, we fitted both four and five-factor models. First, based on substantive meanings associated with the factors, we fitted a model with five factors, retaining 38 of the 41 variables. Factor 1 measures women's general negative feelings, and 13 variables loaded into this factor. Factor 2 measures women's satisfaction with relationships (seven variables) and their satisfaction with their ability to control their fertility (one variable). Factor 3 is satisfaction with economic, family and personal conditions (eight variables). Factor 4 is negative feelings regarding marital and domestic issues (six variables), and Factor 5 is ability to pursue activities outside the home (four variables). These five factors explained 45.1 percent of the total vari-

8

TABLE 1. Sociodemographic characteristics of women, Lampung and South Sumatra, Indonesia, 1996 (n = 562)

Characteristic	Percent Distribution
Province	
Lampung	50.5
South Sumatra	49.5
Residence	
Rural	52.7
Urban	47.3
Age group	
15-29	41.4
30 and over	58.6
Age at marriage	
<20 years	66.2
≥20 years	33.8
SES*	
Low	22.6
Medium	29.4
High	48.1
Level of education	
None/some elementary	19.2
Completed elementary	41.5
Some high school	19.0
High school graduate or higher	20.3
Work status	
Wage/income earner	46.1
Homemaker	53.9

Note: Ns apply to total number of respondents in each group and may vary due to item non-response.
*Socioeconomic status (SES) was ranked as high, middle, or low, using an index based on the number of household amenities.

ance. Table 2 shows the 38 psychological well-being items in the five-factor model, with their factor loadings; these items were retained because their loading were at least 0.4. Only three items had loadings below 0.4: feeling free, feeling useful to others, being concerned that one's family is a burden to the extended family.

Scale Development and Cluster Analysis

To facilitate interpretation of our findings, we constructed five scales that correspond to the five factors identified in the factor analysis. Table 3 shows the means and standard deviations of the scales and items within each scale. Cronbach's alpha measures indicated that four of the five scales had substantial reliability. The fifth scale, measuring women's perceptions of their opportunities to pursue personal interests, had very low reliability.

For the most part, women in South Sumatra and Lampung reported positive perceptions of their own well-being (Table 3). The mean scores

TABLE 2. Varimax-re
well-being*

Item
General negative feelings
Unable to solve personal proble
Doubtful and conflicted
Angry with myself
Overwhelmed by responsibilitie
Feel helpless about handling fa
Feelings of guilt
Overwhelmed by responsibilitie
Uncertain about my family's fut
Angry with others (e.g., husbar
Need support/help from extenc
Disappointed with family life
Anxious about ability to control of pregnancies/births
Ashamed of family's living con
Satisfaction with relationshi fertility
Satisfaction with relationship w
Satisfaction with relationship w
Satisfaction with relationship w
Satisfaction with relationship w
Satisfaction with sexual life
Satisfaction with ability to man of children
Satisfaction with religious life
Satisfaction with economic, conditions
Able to meet family's financiat
Satisfaction with family incom
Feel healthy, rarely ill
Have time to take care of self
Satisfaction with life as a who
Satisfaction with health
Satisfaction with ability to mar
Have enough time to care for
Negative feelings regarding issues
Husband not understanding c
Marital problems due to hous
Ashamed of personal appear
Unable to visit relatives due t
Overwhelmed by household
Difficult to raise children well
Ability to pursue activities
Have enough time to socializ
Have opportunity to earn adc
Have time for community act
Have opportunity to pursue p

*Items with factor loadings le

9

.ampung and South

Percent Distribution
50.5
49.5
52.7
47.3
41.4
58.6
66.2
33.8
22.6
29.4
48.1
19.2
41.5
19.0
20.3
46.1
53.9

'n non-response.
ed on the number of house-

'ing items in the
'ms were retained
ems had loadings
ıg concerned that

ructed five scales
or analysis. Table
scales and items
ed that four of the
asuring women's
nterests, had very

ampung reported
The mean scores

TABLE 2. Varimax-rotated factor matrix for items measuring psychological well-being*

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
General negative feelings					
Unable to solve personal problems	.710				
Doubtful and conflicted	.694				
Angry with myself	.676				
Overwhelmed by responsibilities as wife	.660				
Feel helpless about handling family matters	.650				
Feelings of guilt	.645				
Overwhelmed by responsibilities as mother	.636				
Uncertain about my family's future	.619				
Angry with others (e.g., husband, children)	.600				
Need support/help from extended family, neighbors	.585				
Disappointed with family life	.585				
Anxious about ability to control number and timing of pregnancies/births	.537				
Ashamed of family's living conditions	.490				
Satisfaction with relationships and ability to control fertility					
Satisfaction with relationship with husband		.820			
Satisfaction with relationship with extended family		.819			
Satisfaction with relationship with children		.819			
Satisfaction with relationship with friends and neighbors		.798			
Satisfaction with sexual life		.748			
Satisfaction with ability to manage spacing and number of children		.498			
Satisfaction with religious life		.441			
Satisfaction with economic, family and personal conditions					
Able to meet family's financial needs			.657		
Satisfaction with family income			.596		
Feel healthy, rarely ill			.592		
Have time to take care of self			.586		
Satisfaction with life as a whole			.563		
Satisfaction with health			.527		
Satisfaction with ability to manage family			.493		
Have enough time to care for children			.401		
Negative feelings regarding marital and domestic issues					
Husband not understanding or caring				.728	
Marital problems due to household chores				.664	
Ashamed of personal appearance				.521	
Unable to visit relatives due to child care responsibilities				.475	
Overwhelmed by household chores				.408	
Difficult to raise children well				.407	
Ability to pursue activities outside the home					
Have enough time to socialize					.588
Have opportunity to earn additional income					.556
Have time for community activities					.522
Have opportunity to pursue personal interests					.463

*Items with factor loadings less than .4 are not included.

10

TABLE 3. Means and standard deviations of scales and items

Scale and Items	Mean	Standard Deviation
Scale 1: General negative feelings (Cronbach's alpha = 0.883, Split-half reliability coefficient for first 7 items = 0.840, last 6 items = 0.713)	**2.41**	**.46**
Unable to solve personal problems	2.44	.66
Doubtful and conflicted	2.38	.68
Angry with myself	2.27	.72
Overwhelmed by responsibilities as wife	2.55	.64
Feel helpless about handling family matters	2.53	.61
Feelings of guilt	2.25	.68
Overwhelmed by responsibilities as mother	2.56	.64
Uncertain about my family's future	2.07	.72
Angry with others (e.g., husband, children)	2.17	.66
Need support/help from extended family, neighbors	2.34	.66
Disappointed with family life	2.54	.63
Anxious about ability to control number and timing of pregnancies/births	2.49	.67
Ashamed of family's living conditions	2.69	.54
Scale 2: Satisfaction with relationships and ability to control fertility (Cronbach's alpha = 0.857, Split-half reliability coefficient for first 4 items = 0.885, last 3 items = 0.579)	**2.21**	**.35**
Satisfaction with relationship with husband	2.26	.54
Satisfaction with relationship with extended family	2.21	.54
Satisfaction with relationship with children	2.29	.55
Satisfaction with relationship with friends and neighbors	2.20	.52
Satisfaction with sexual life	2.30	.57
Satisfaction with ability to manage spacing and number of children	2.14	.65
Satisfaction with religious life	2.05	.69
Scale 3: Satisfaction with economic, family and personal conditions (Cronbach's alpha = 0.803, Split-half reliability coefficient for first 4 items = 0.665, last 4 items = 0.662)	**1.98**	**.44**
Able to meet family's financial needs	1.85	.66
Satisfaction with family income	1.73	.67
Feel healthy, rarely ill	2.11	.68
Have time to take care of self	1.99	.63
Satisfaction with life as a whole	1.91	.68
Satisfaction with health	1.99	.65
Satisfaction with ability to manage family	1.99	.58
Have enough time to care for children	2.23	.64
Scale 4: Negative feelings regarding marital and domestic issues (Cronbach's alpha = 0.803, Split-half reliability coefficient for first 3 items = 0.629, last 3 items = 0.571)	**2.17**	**.72**
Husband not understanding or caring	2.30	.84
Marital problems due to household chores	2.30	.79
Ashamed of personal appearance	2.30	.83
Unable to visit relatives due to child care responsibilities	1.86	.82
Overwhelmed by household chores	2.06	.86
Difficulty raising children well	2.18	.87
Scale 5: Ability to pursue activities outside the home (Cronbach's alpha = 0.465, Split-half reliability coefficient for first 2 items = 0.177, last 2 items = 0.265)	**2.26**	**.63**
Have enough time to socialize	1.97	.57
Have opportunity to earn additional income	2.28	.89
Have time for community activities	2.50	.76
Have opportunity to pursue personal interests	2.29	.83

Note: A mean of 1 indicates low perceived well-being, while 3 indicates high perceived well-being.

for the scales
would indica
tion with rel
economic, fa
regarding ma
tivities outsic

Next, we e
ated by score
importance o
ters. We foun
side the hom
statistic for r
and at the san
clusters. Bas
ing poor reli
cluster analy
clusters. We
no particular
tain the origi
the items like
and standard

Women's
Figure 1. Hig
1 and 4. Simi
of satisfactio
levels of per
(42%) were i
though they
Women in cl
all scales in
in cluster 1
level of "ge
women and

Psychologic
and Sociode

Table 4 sh
being cluste
clusters. All
for work sta

11

ıles and items

	Mean	Standard Deviation
	2.41	.46
	2.44	.66
	2.38	.68
	2.27	.72
	2.55	.64
	2.53	.61
	2.25	.68
	2.56	.64
	2.07	.72
	2.17	.66
	2.34	.66
	2.54	.63
	2.49	.67
	2.69	.54
	2.21	.35
	2.26	.54
	2.21	.54
	2.29	.55
	2.20	.52
	2.30	.57
	2.14	.65
	2.05	.69
	1.98	.44
	1.85	.66
	1.73	.67
	2.11	.68
	1.99	.63
	1.91	.68
	1.99	.65
	1.99	.58
	2.23	.64
	2.17	.72
	2.30	.84
	2.30	.79
	2.30	.83
	1.86	.82
	2.06	.86
	2.18	.87
	2.26	.63
	1.97	.57
	2.28	.89
	2.50	.76
	2.29	.83

:eived well-being.

for the scales were: 2.41 for general negative feelings (a score of three would indicate absence of negative feelings); 2.21 for level of satisfaction with relationships and fertility control; 1.98 for satisfaction with economic, family and personal conditions; 2.17 for negative feelings regarding marital and domestic issues, and 2.26 for ability to pursue activities outside the home.

Next, we explored whether women clustered into groups differentiated by scores on the well-being scales. In this analysis, we assessed the importance of using different numbers of scales (four or five) and clusters. We found that the fifth scale (opportunities to pursue activities outside the home) was not important in forming clusters of women (kappa statistic for measurement of agreement = .805). It had low reliability and at the same time had little effect on how women were classified into clusters. Based on this finding and the Cronbach's alpha score indicating poor reliability, we elected to use just the first four scales. Using cluster analysis, we found that the women grouped clearly into three clusters. We also determined that the standardized scale scores offered no particular advantage to the raw scores (kappa = .747), and thus we retain the original raw scores. The relative homogeneity of the variance of the items likely accounts for the similar cluster distributions of the raw and standardized scales.

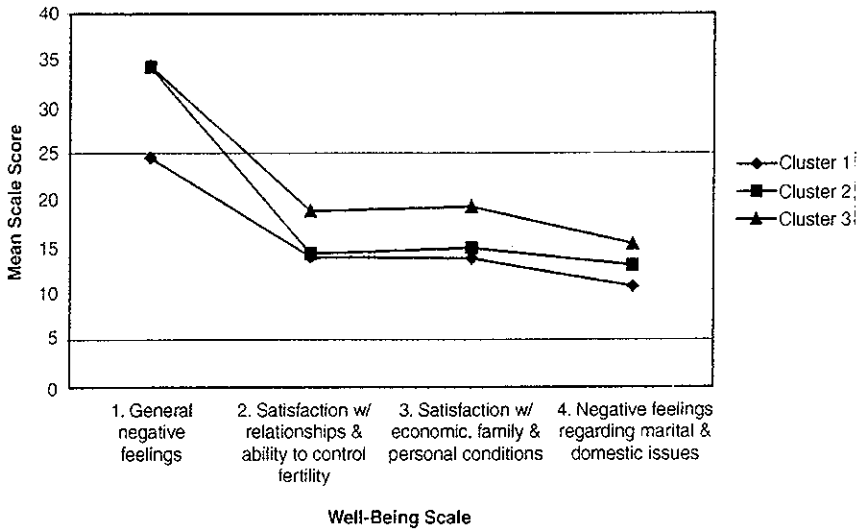
Women's mean scores on the four scales are depicted, by cluster, in Figure 1. Higher means indicate absence of negative feelings on scales 1 and 4. Similarly, higher means on scales 2 and 3 indicate higher levels of satisfaction. Women in cluster 3 (28% of the sample) had the highest levels of perceived well-being on all four scales. Women in cluster 2 (42%) were in the middle in terms of their perceptions of well-being, although they did rank the highest on scale 1 along with cluster 3 women. Women in cluster 1 (30%) consistently reported worse experiences on all scales in comparison with the other two profiles. However, women in cluster 1 differ from women in cluster 2 most dramatically in their level of "general negative feelings"; in other aspects of well-being women and clusters 1 and 2 do not differ considerably.

Psychological Well-Being Clusters and Sociodemographic Characteristics: Bivariate Analysis

Table 4 shows women's sociodemographic characteristics, by well-being cluster, to illustrate some of the differences between the three clusters. All the sociodemographic characteristics we examined except for work status were associated in bivariate analyses with a woman's

12

FIGURE 1. Mean Scores on Well-Being Scales, by Cluster



cluster identification. Cluster 3 had a higher proportion of urban women (56%) than clusters 1 (46%) and 2 (43%), while cluster 2 had the highest proportion of rural women (57%). Cluster 3 had a much higher proportion of women from Lampung (75%) than the other two clusters, while almost two-thirds (65%) of the women in cluster 1 were from South Sumatra. Cluster 1 had the highest proportion of younger women aged 15-30 (50%), while about two-thirds of the women in cluster 2 and cluster 3 were over 30 years of age. Cluster 1 had the largest share of women who married before age 20 (74%), while cluster 3 had the highest proportion of women who married at age 20 or later (46%). Over one-third of the women in cluster 1 were of low socioeconomic status (SES), while cluster 2 had the highest proportion of high SES women (66%). Cluster 3 also had the highest proportion of women with a high school degree; 30% of women in cluster 3 finished high school, compared to 14% in cluster 1 and 18% in cluster 2.

In summary, women in cluster 1 were most likely to have the following characteristics: South Sumatra residence, rural residence, young age (15-30), young age at marriage (< 20 years), low SES, and low educational level. Women in cluster 2 were likely, as were women in cluster 1, to live in rural areas and have low levels of education. They were also

TABLE 4. Select
Lampung and So

Sociodemographic Characteristic
Province*
Lampung
South Sumatra
Residence*
Rural
Urban
Age group*
15-29
30 and over
Age at marriage*
<20 years
≥20 years
SES*
Low
Medium
High
Level of education*
None/some elementary
Completed elementary
Some high school
High school graduate or
Work status
Wage/income earner
Homemaker

Note: *$p < .05$. Ns apply

likely, along w
ter 3 were mos
married at an c

This study,
well-being in I
being using 41
Factor analysi
well-being int
(1) general ne
ability to cont
personal condi
tic issues; and
structed five s

13

TABLE 4. Selected sociodemographic characteristics of women, by cluster, Lampung and South Sumatra, Indonesia, 1996 (n = 562)

Sociodemographic Characteristic	Cluster 1 (n = 171)	Cluster 2 (n = 233)	Cluster 3 (n = 158)
Province*			
Lampung	35.1	45.1	75.3
South Sumatra	64.9	54.9	24.7
Residence*			
Rural	54.4	57.1	44.3
Urban	45.6	42.9	55.7
Age group*			
15-29	50.0	36.8	39.0
30 and over	50.0	63.2	61.0
Age at marriage*			
<20 years	73.7	69.1	53.8
≥20 years	26.3	30.9	46.2
SES*			
Low	33.1	25.2	6.7
Medium	31.3	29.2	27.5
High	35.5	45.6	65.8
Level of education*			
None/some elementary	22.2	20.8	13.5
Completed elementary	46.8	43.3	32.9
Some high school	17.0	17.7	23.2
High school graduate or higher	14.0	18.2	30.3
Work status			
Wage/income earner	44.4	48.9	43.7
Homemaker	55.6	51.1	56.3

Note: *$p < .05$. Ns apply to total number of respondents in each group and may vary due to item non-response.

likely, along with women in cluster 3, to be over age 30. Women in cluster 3 were most likely to be: urban, from Lampung, aged 30 and older, married at an older age (20 or older), high SES, and well educated.

SUMMARY AND DISCUSSION

This study, the first published to examine women's psychological well-being in Indonesia, measured women's perceptions of their well-being using 41 questionnaire items about five domains of well-being. Factor analysis reduced 38 of the 41 variables measuring women's well-being into five factors accounting for 45% of the total variance: (1) general negative feelings; (2) satisfaction with relationships and ability to control fertility; (3) satisfaction with economic, family and personal conditions; (4) negative feelings regarding marital and domestic issues; and (5) ability to pursue activities outside the home. We constructed five scales based on these factors and explored whether women

14

clustered into groups based on their scores on these scales. It is notable that these scales tap into similar domains as those found among U.S. samples. For example, several items in the "general negative feelings," "satisfaction with relationships and ability to control fertility," and "satisfaction with economic, family and personal conditions" scales reflect quality of life issues comparable to those reported in U.S. studies (Diener, 1984; Andrews and Withey, 1976).

Overall, Indonesian women expressed positive perceptions of their psychological well-being, scoring 2.2 (out of a possible 3) or higher on four of five scales. Most notably, women reported an absence of general negative feelings. It should be noted that in most regions of Indonesia, cultural norms place a high value on politeness and discourage expressions of dissatisfaction (Hull, 1997; Bahar et al., 1992), making measurement of negative feelings particularly difficult. However, there were measurable differences in levels of well-being, and women did differentiate among domains of their lives when assessing their psychological well-being; they felt least satisfied with economic, family and personal conditions (mean score of 1.98).

Women grouped into three clusters, differentiated by their scores on four of the five scales of well-being. Women in cluster 3 were characterized by their high level of perceived well-being. Women in cluster 1 had the lowest level of perceived well-being, and women in cluster 2 were in the middle in terms of their perceptions of well-being. Low levels of psychological well-being were associated in bivariate analyses with: (1) rural residence; (2) young age (under age 30); (3) marriage before age 20; (4) low socioeconomic status; and (5) lower educational attainment.

This study had some limitations that may have influenced our findings. We converted four-point item responses to three-point responses. By doing this, we may not have captured the actual variation in well-being among women in the study, as short scales tend to capture less of the variation in a population than do longer scales (Andrews and Robinson, 1991:108). We recommend that other researchers using these items of well-being design questionnaires with response scales of five or more points. Patterns of non-response may also have influenced the findings of this study. Divorced and widowed women, women age 30, and older and urban women were more likely than others to have missing responses and thus be excluded from analysis. As age and area of residence were also found to be associated with the types of clusters formed, a potential for bias in forming the clusters could have existed.

Our data sug
logical well-be
an important i
logical well-be
produce result
naire items, In
research that
then demonstr
of well-being
Further, at l
sian women ca
lives should b
groups of wo
status, dyadic
these new too
relations with
hance well-be
Finally, it v
the political a
cent years. In
women were
likely that ma
this economic

Andrews, F.M. a
sures of Per
Press. Pp. 62
Andrews, F. an
Press.
Bahar, E., Hend
mental health
Scandinavic
Cantril, H. (19
University P
Central Bureau
tional Famil
(MOH) and
Health Surv

15

Our data suggest, however, that there is clear variation in the psychological well-being of Indonesian women. Further, this study represents an important initial step in developing measures to assess the psychological well-being of Indonesian women. While factor analytic techniques produce results reflective only of the originally developed questionnaire items, Indonesian women generated these concerns in qualitative research that informed the development of the individual items, and then demonstrated that at least four, if not five, independent dimensions of well-being are important to their lives.

Further, at least three different profiles of well-being among Indonesian women can be identified. Implications for other aspects of women's lives should be explored. For example, further analysis of these three groups of women might show relationships with reproductive health status, dyadic relationships, and women's empowerment. We hope that these new tools and findings spur further research aimed at specifying relations with other aspects of women's lives, and factors that might enhance well-being in all of these areas.

Finally, it would be interesting to conduct a similar study now, given the political and economic turmoil that Indonesia has experienced in recent years. In 1996, when this study was conducted, the area in which women were least satisfied was their family's economic situation. It is likely that many women would have even less positive perceptions of this economic well-being today.

REFERENCES

Andrews, F.M. and Robinson, J.P. (1991). Measures of subjective well-being. In *Measures of Personality and Social Psychological Attitudes*. New York: Academic Press. Pp. 62-114.

Andrews, F. and Withey, R.S. (1976). *Social Indicators of Well-Being*. NY: Plenum Press.

Bahar, E., Henderson, A.S., and Mackinnon, A.J. (1992). An epidemiological study of mental health and socioeconomic conditions in Sumatera, Indonesia. *Acta Psychiatrica Scandinavica* 85(4), 257-263.

Cantril, H. (1967). *The Pattern of Human Concerns*. New Brunswick, NJ: Rutgers University Press.

Central Bureau of Statistics (CBS) [Indonesia] and State Ministry of Population/National Family Planning Coordinating Board (NFPCB) and Ministry of Health (MOH) and Macro International Inc. (MI). 1995. *Indonesia Demographic and Health Survey 1994*. Calverton, MD: CBS and MI.

16

Davis, J.A. (1984). New money, an old man/lady, and 'two's company:' Subjective Welfare in the NORC General Social Surveys. *Social Indicators Research* 15(4), 319-350.

Diener, E. (1984). Subjective well-being. *Psychological Bulletin* 95, 542-575.

Diener, E. (2000) Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist* 55, 34-43.

Devins, G.M., Beiser, M., Dion, R., Pelletier, L.G., and Edwards, R.G. (1997). Cross-cultural measurements of psychological well-being: The psychometric equivalence of Cantonese, Vietnamese, and Laotian translations of the Affect Balance Scale. *American Journal of Public Health* 87(5), 794-799.

Government of Indonesia (1998). Central Bureau of Statistics website (www.bps.go.id).

Hofstede, G. (1980). *Culture's Consequences: International Differences in Work Related Values*. Beverly Hills, CA: Sage.

Hofstede, G. (1984). Cultural dimensions in management and planning. *Asia Pacific Journal of Management* 1(2), 81-99.

Hull, T. (1997). I can't get no dissatisfaction. Paper presented at Psychosocial Workshop, Washington, DC, March 26, 1997.

Irwanto, Poerwandari, E.K., Prasadja, H., Sunarno, N., Hardee, K., Eggleston, E., and Hull, T. (1997). *In the Shadow of Men: Reproductive Decision-Making and Women's Psychological Well-Being in Indonesia*. Final report. Jakarta: Center for Societal Development Studies, Atma Jaya Catholic University and Research Triangle Park, NC: Family Health International.

Lee, H., Kim, K.D., and Shinn, D.C. (1982). Perceptions of quality of life in an industrializing country: The case of the Republic of Korea. *Social Indicators Research* 10(3), 297-318.

Robinson, J.P., Shaver, P.R., and Wrightsman, L.S. (Eds.) (1991). *Measures of Personality and Social Psychological Attitudes*. San Diego: Academic Press.

Ryan, R.M. and Deci, E.L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist* 55, 68-78.

Sastry, J., and Ross, C.E. (1998). Asian ethnicity and the sense of personal control. *Social Psychology Quarterly* 61(2), 101-120.

Schwartz, S.H. (1995). Cultural dimensions of values: Toward an understanding of national differences. In *Individualism and Collectivism*, Ed. M.H. Bond, Newbury Park, CA: Sage.

Schwarzer, R., Born, A., Iwawaki, S., Lee, Y., Saito, E., and Yue, X. (1997). The assessment of optimistic self-beliefs: comparison of the Chinese, Indonesian, Japanese, and Korean versions of the General Self-Efficacy Scale. *Psychologia* 40, 1-13.

Sciortino, Rosalia. (1998). The challenge of addressing gender in reproductive health programmes: Examples from Indonesia. *Reproductive Health Matters* 6(11): 33-43.

Seligman, M.E.P. and Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist* 55, 5-14.

Shaw, M.E. and Wright, J.M. (1967). *Scales for the Measurement of Attitudes*. New York: McGraw-Hill.

Wilopo, S.A. (1994). Hasil konperensi di Kairo: Implikasinya pada program kesehatan reproduksi di Indonesia. *Populasi* 50(2), 1-29.