

CHAPTER III

RESEARCH METHODOLOGY

3.1 Study Design

This research is a cross-sectional descriptive research, which aims to measure the level of body image satisfaction and find the relationship between the eating disorder behavior and body image satisfaction among Thai actresses on a soap opera TV. The methodology of the study is quantitative study using closed-ended self-report questionnaire covering 3 major parts: socio-demographic characteristics, body image satisfaction, and eating behaviors. The study aims to quantify significances of variables and correlations among them. The qualitative study is also conducted through in-depth interviews, focusing on actresses' own perception and understanding from their experience towards their body images and eating behaviors in attempting to lose weight, in order to support and explain the results.

3.2 Study Population and Setting

3.2.1 Inclusion criteria

Thai soap opera actresses of Thai and mixed-ethnicity will be subjective for this research. They will also have to meet the following criteria:

1. Actresses of reproductive age, between 14-49 years old
2. Used to play soap operas on Thai free TV (Ch3, TV5, Ch7, Modern9, CH11, and ITV) during year 2001 to 2005
3. Volunteer and be willing to cooperate through out the research period.

The database of the subjective actresses was acquired by combining database from 4 specialized Thai TV magazines providing actors database i.e. TV Pool Magazine, Pappayon Banterng Magazine, and Dara Pappayon Magazine. The database showed that there were 1,093 TV actresses in total: of which 599 were actresses, and only 534 actresses met the first 2 criteria of the study.

3.2.2 Exclusion criteria

The following exclusion criteria were used to screen out the sample population:

- 3.1 Actresses who were not in Bangkok and Bangkok suburban during period of data collection (2 months; February-March 2006)
- 3.2 Those who did not consent to participate and refuse to answer the questionnaires.

3.2.3 Sampling and sample size

The Yamane's simplified formula was employed to calculate the sample size for questionnaire data collection because the population size of this study is finite and known (Yamane, 1967), Yamane's simplified formula is shown in equation 3.1

$$n = \frac{N}{1 + N(e)^2}$$

where

n	=	Sample size
N	=	Population ($N = 534$)
e	=	Level of precision ($e = 0.05$)

So that

$$n = \frac{534}{1 + (534) \cdot (0.05)^2} = 229 \text{ actresses}$$

A safety tolerance (10% of 229) was added to cope with possible errors such as missing or incomplete data. Thus, at least 252 actresses were subjected to the self-report questionnaire. The 246 actresses consented to complete the questionnaires, while 6 actresses refused to complete the questionnaires.

For the in-depth interview data collection, subjects were randomly picked to be interviewed based on their disordered eating behavior score. The 15 actresses who got Eating Attitude Test (EAT-26) score more than 20 were picked to be interview.

3.3 Procedures

3.3.1 Questionnaire survey

Two hundred and fifty two TV actresses were randomly sampled using simple random method from the combined database. Each sampled TV actress was telephonically approached to establish her willingness to participate in the study. Upon her agreement to participate the study, the appointment of interview was arranged. Two hundred and forty six actresses agreed to participate the study, while four actresses declined to participate due to personal reasons, and two actresses declined to participate because they were not in Bangkok during the study. Since the sample size was 246 participants which greater than sample size suggested by Yamane's formula (229), re-sampling was not needed.

Each actress was informed about the study prior to the completion of the questionnaire and then she was asked to complete a self-report questionnaire designed for assessment of self-attitude of the body image and eating disorder.

3.3.2 In-depth interview

Fifteen subjects of in-depth interview were purposively sampled from the problematic eating behavior group. The problematic eating behavior group was defined by EAT-26 score. The score of 20 or higher has been taken to define the first stage of screening for susceptible cases of an eating disorder and problematic eating behavior

(Garner, Olmstead, Bohr & Garfinkel, 1982; Garner, Olmstead & Polivy, 1993). Each chosen subject was approached by telephone to establish her willingness to participate in the interview. Upon her agreement to participate the study, the appointment of interview was arranged. For those who declined to participate, re-samplings were applied to the rest actresses in the group. Each subject was informed about the study prior to the interview and then she was interviewed with vaguely prepared questions. This interview mainly focused on her perception towards her body images and her behaviors in trying to lose weight.

3.4 Research Instruments and Levels of Measurement

A questionnaire for measure body image satisfaction and disordered eating behavior for Thai soap opera actresses consisted of 3 main parts.

3.4.1 Socio-demographic factors

The socio-demographic part contained 9 items. Table 3.1 shows nine socio-demographic items with their level of measurement and possible value.

Table 3.1: Socio-demographic items with their level of measurement and possible value.

Item	Level of Measurement	Value
1. Age	Ratio	In years
2. Educational level	Ordinal	0 = Not a high school graduate 1 = High school 2 = High vocational school 3 = Bachelor degree 4 = Master degree or higher
3. Marital status	Nominal	0 = Single 1 = Living together yet not married 2 = Married 3 = Widowed/separated/divorced
4. Maternal status	Nominal	0 = Doesn't have children 1 = Have children 2 = Being pregnant
5. Ethnicity	Nominal	0 = Thai 1 = Thai – East Asian 2 = Thai – Indian/Middle-East 3 = Thai – European 4 = Thai – African
6. Height	Ratio	In centimeters
7. Weight	Ratio	In kilograms
8. Smoking status	Nominal	0 = Never 1 = Quitted 2 = Smoking
9. Alcohol drinking status	Nominal	0 = Never 1 = Quitted 2 = Drinking

3.4.2 Occupational factors

The occupational part contained 10 items which were designed specially for entertainment-related occupations. Table 3.2 shows occupational items with their level of measurement and possible value.

Table 3.2: Occupational items with their level of measurement and possible value.

Item	Level of Measurement	Value
1. Occupational status	Nominal	0 = In entertainment business 1 = Not in entertainment business
2. Duration of being in business	Ratio	In years
3. Number of soap operas played in the past one year	Ratio	In plays
4. Most acted role in the past one year	Nominal	0 = Main 1 = Main support 2 = Support 3 = Extra
5. Appearance of the role	Nominal	0 = Beauty is necessary 1 = Beauty is not necessary
6. Character of the role	Nominal	0 = Polite 1 = Mean 2 = Childish/Tomboy 3 = Funny
7. Extra body and beauty care	Nominal	0 = Needed 1 = Not needed
8. Income	Ordinal	0 = 0 – 500,000 Bahts/year 1 = 500,001 – 1,000,000 Bahts/year 2 = More than 1,000,001 Bahts/year
9. Monthly expense	Ratio	In Bahts
10. Monthly beauty expense	Ratio	In Bahts

3.4.2 Body image satisfaction and disordered eating behavior

According to intensive literature review of relevant published article on eating disorder and body image satisfaction, this research used a self-administered questionnaire as a tool for quantitative data collection. This questionnaire was the most appropriate and convenient ways to determine body image satisfaction and detect disturbed eating behavior in selected purposeful sample groups, as it is relatively reliable and allow privacy (Garner, Olmstead & Polivy, 1993; Sungot-Borgen, 1993). Three main factors were measured, socio-demographic factors, level of body image satisfaction based on Body Mass Index (BMI), Body Shape Questionnaires (BSQ; Cooper et al., 1987), and Figure Rating Scale (FRS; Fallon & Rozin, 1985), and degree of eating disorder behavior based on Eating Attitude Test (EAT-26; Garner, Olmstead, Bohr, & Garfinkel, 1982) among Thai actresses on a soap opera TV.

The BMI is calculated based on height and weight measurements taken and recorded at the testing session. BMI is calculated by dividing weight (kg) with the square of height (m^2). BMI is used to compare and analyze the health effects of body weight on human bodies of all heights. According to BMI classifications for Asians, the scores range from <18.5 = underweight, $18.5 - 22.9$ = normal, $23 - 24.9$ = at risk of obesity, >25.0 = obese I and >30 = obese II (Weisell, 2002). The BMI can be used to measure body image satisfaction by comparing actual BMI, which computed using actual weight and actual height, and ideal BMI, which computed using ideal weight and actual height.

The BSQ is a 34-item self-report questionnaire used to assess levels of concern about one's body size and shape (Cooper et al., 1987). The items are all rated on 6 scales ranging from "never" to "always." Higher scores are reflective of more body dysphoria, an aspect of body image disturbance, and low body satisfaction; a score of 110 or above is indicative of clinically significant body dysphoria (Cooper et al., 1987). The BSQ has been shown to have good reliability and validity, and has been shown to discriminate between persons with Bulimia Nervosa and controls as well as persons in body image therapy and controls (Cooper et al., 1987; Rosen & Jones et al., 1996). The BSQ was validated on both eating disorder and nonclinical participants (Williamson & Anderson et al., 1995). These researchers found the BSQ to be the best measure for defining a subclinical eating disorder group. Numerous studies have also used the BSQ for this purpose (Williamson, Perrin et al., 2000; Baker et al., 1995; Jackman et al., 1995).

The Figure Rating Scale (FRS; Stunkard, Sorenson, & Schulsinger, 1983) consists of a continuum of nine female silhouettes, ranging from extremely thin (1) to obese (9) as shown in Figure 3.1. The subjects would be requested to nominate the body shape that would be their desired body size and to nominate the body shape that represents their current body size. The FRS is purported to measure the cognitive dimension of body image and is frequently used as a measure of personal body dissatisfaction. This is obtained by assessing the discrepancy between the individual's current body shape and their perceived ideal body shape (Lavine, Sweeney & Wagener, 1999; Thompson et al., 1999). The FRS has been commonly used in similar research and appears well validated, with high test-retest reliability (Thompson & Altabe, 1991).

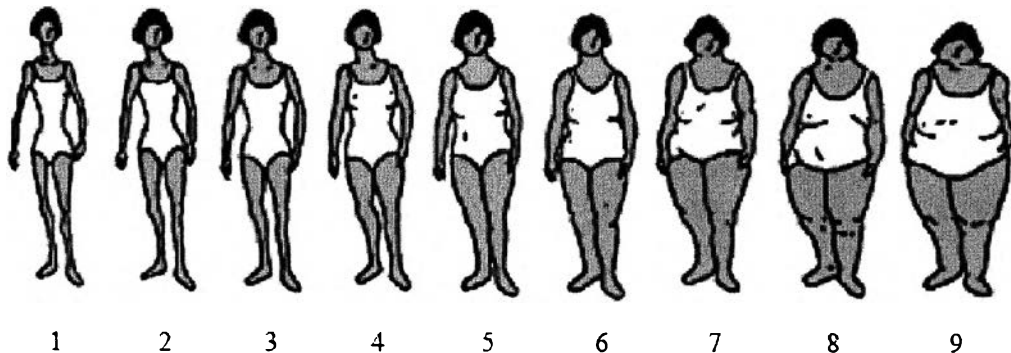


Figure 3.1 Figure Rating Scale

The Eating Attitudes Test (EAT-26; Garner, Olmstead, Bohr & Garfinkel, 1982) is a 26-item questionnaire which is used to assess eating disorder symptoms. Participants of this test respond to each item with “always”, “usually”, “often”, “sometimes”, “rarely”, or “never”. The EAT-26 is scored such that the most disordered response is worth 3 points, the second most disordered response is worth 2 points, and the third most disordered response is worth 1 point, while the three rest responses are worth 0 points. Higher scores indicate increased eating disorder symptoms. A standard cutoff score (= 20) has been established to classify the participants that display subclinical eating disorder symptoms. Test-retest reliability (Carter & Moss, 1984) and internal consistency (Garner & Garfinkel, 1979) of the EAT are good, and it has been shown to have good concurrent validity with a number of other eating disorder measures (Williamson & Anderson et al., 1995). Cutoff scores of 20 on the EAT-26 have been suggested to identify persons with problematic attitudes and behavior toward eating (Garner, Olmstead, Bohr & Garfinkel, 1982).

The level measurement of BMI difference, BSQ score, FRS discrepancy and EAT-26 score were all ratio scale.

3.5 Validity Test of the Instrument

The questionnaire used for this study was based on high validity questionnaires (BSQ, and EAT-26).

For content validity, the developed questionnaire was distributed to public health and anthropology experts in order to validate the questionnaire. Possible flaws and ambiguity of the tool were discussed with these experts and necessary changes were incorporated. Questions modified, selected, and translated into Thai for final survey, were thus made simple, unambiguous and comprehensive in term of easy-to understand language and terminology.

3.6 Reliability Test of the Instrument

Before the real data collection, 30 women who perform similar work to TV soap opera actresses but have never played any role on TV soap opera; i.e. fashion models, commercial actresses, and product presenters were purposively selected to test the reliability. Cronbach's alpha coefficient was applied to measure reliability. The score of

reliability test for Thai BSQ (34 items) was 0.965 and for the Thai EAT-26 (26 items) was 0.816. Thus, it showed high reliability and internal consistency of the instruments.

3.7 Data Analysis Methods

The data was analyzed using software packages (Microsoft Excel and SPSS). The significant level was set at 0.05.

1. Descriptive statistics were used to describe population characteristics. The data were expressed as numbers, frequencies, percentages, means, and standard deviations subjected to each factor.

2. Inferential statistics were used to determine the associations among variables. Independent t-test, paired-wise t-test, Pearson product-moment correlation coefficient (r), ANOVA, and multiple comparison methods were applied to analyze significance and associations between variables.

3.8 Ethical Issue

Since ethical consideration is important for the study, all respondents' questionnaires and gathered information remained completely confidential. That is, only the researcher had access to completed questionnaires. The questionnaires and other

information were stored securely. Most importantly, all participants in this study were purely voluntary. Each participant was telephonically approached to establish her willingness to participate in the study. The participant was informed of the goals of the study and the study methodology prior to the interview. A consent form (Appendix C) was also filled by each participant to show their willingness and voluntary. Upon her agreement to participate the study, the interview was conducted.