Slow Progress of Bariatric Surgery in Thailand: Surgeons’ Opinions

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BACKGROUND: Despite the rapid popularity of bariatric surgery in many countries, this type of surgery has not become very prevalent in Thailand. The purpose of this study was to find out the attitude of Thai general surgeons regarding the advisability of bariatric surgery to obese people.

METHODS: Questionnaires were sent to 500 general surgeons asking about their knowledge and opinion regarding the concepts and recommendation of bariatric surgery in their practice.

RESULTS: One hundred and sixty-nine surgeons responded to the questionnaires. They were grouped into general surgeons who were not practicing laparoscopic surgery, laparoscopic surgeons who were not doing bariatric surgery and bariatric surgeons. Overall, no more than 50% could give correct answers about the definition of body mass index (BMI) and the mechanism of bariatric surgery. Only about one third and one half of the first two groups of surgeons, respectively, agreed with the recommendation of using surgery to reduce morbid obesity and they gave various reasons, some of which were not based on current and correct knowledge.

CONCLUSION: At least half of the Thai surgeons who were not practicing bariatric surgery did not agree with the concept of surgical weight reduction. However, their attitude was not based on sound knowledge and current evidence. [Asian J Surg 2009;32(4):205–15]

Key Words: bariatric surgery, body mass index, questions, Thailand

Introduction

Obesity is becoming a significant health care problem not only in developed countries but also in developing countries all over the world. Thailand is also affected by the same trend. There have been surveys in this country to find the prevalence of obesity both in adults and children and they have shown increasing trends in recent years. Studies conducted by the National Health Examination Survey of Thailand in 1991 and 1997 revealed that the prevalence of grade I obesity in adults (body mass index [BMI] 25–30) rose from 16.7% to 28.3%. The prevalence of grade II and III obesity (BMI > 30) increased from 4.0% in 1991 to 6.8% in 1997.1 A cohort study group of adult workers in the Electricity Generating Company in Thailand between the ages of 35 and 59 years being surveyed in the years 1985, 1997 and 2001 confirmed the rising prevalence of overweight subjects and those with obesity from 25% to 33% and 39% respectively.1 It was noted that the prevalence of diabetes mellitus in this population also increased from 3.1% to 8% and 7.8%. The studies in pediatric age group are even more striking. A survey conducted by investigators from Siriraj Hospital, the biggest medical school in Bangkok, showed the prevalence of obesity in childhood to be 5.8% during the period 1986–1995, which rose to 13.3% in the survey during 1996–1999.2 A large scale survey showed the number of obese preschool children increased from 5.8% in the 1996...
National Health Examination Survey to 8% in 2001. The prevalence of diabetes mellitus (DM) in childhood also increased accordingly with time. Type 2 DM in Thai children and adolescents has increased from 5% during 1986–1995 to 17.9% during 1996–1999.

Bariatric surgery has been increasingly popular in the USA, Europe and Australia and has been proved to be not only effective in reducing weight, but also to alleviate many comorbid conditions associated with obesity, most notably DM and hypertension. It has repeatedly been proved to be a cost effective modality of treatment, at least in the USA and Canada. This is reflected by the fact that bariatric procedures are being performed in huge and increasing volumes all over the world.

In Thailand, laparoscopic surgery has been established with laparoscopic cholecystectomy since 1990. Laparoscopic cholecystectomy is now the standard treatment for all forms of gallbladder stone diseases throughout the country. Beyond cholecystectomy, Thai surgeons have been doing laparoscopic hernia repair, colon resection, adrenalectomy and so on. Despite the fact that obesity is becoming prominent as one of the country’s health care problems, plus the lessons learned from the Western surgical world that bariatric surgery has become a popular surgery, Thai surgeons are still very slow in adopting this set of procedures into their practice. It was estimated that in 2007 there were only ten hospitals nationwide that were offering bariatric surgery to the patients. Only eight surgeons were performing this type of surgery; their experience ranged from only one case to over 100 cases. The first laparoscopic gastric banding in this country was done in November 2003. Since then, about 77 bandings and 149 bypasses have been performed, mostly in a few medical schools in the capital city (Bangkok). If we look at the emergence of laparoscopic cholecystectomy in this country in 1990, one surgeon could gather 100 cases in the first 8 months, and the procedure spread rapidly throughout the country within 2 years. It was speculated that bariatric surgery should at least gain rapid popularity following the trends in the Western world but this has not happened. There might have been some factors that have hindered the progress. The low level of Thai public awareness about the problems of obesity obviously is one of them. However, general knowledge related to obesity has been widely available in numerous publications in newspapers, magazines and mass media. It probably is not the only factor. Health care providers probably play certain roles in the speed of accepting this surgery. It can be suspected that surgeons’ attitudes regarding obesity and bariatric surgery may affect their acceptance of this modality in their own practice. It is thus the purpose of this study to find out the attitude of general surgeons regarding bariatric surgery and to try to explain why the progress of bariatric surgery is so slow in this country.

Materials and Methods

Questionnaires were sent to 500 practicing general surgeons all over the country in March 2008. The names of these surgeons were randomly picked from the list of some 1,500 board qualified surgeons who were members of the General Surgery Association of Thailand, which had recently been founded by a group of members of the Royal College of Surgeons of Thailand. Surgeons who were known to have retired from their practice were excluded. The questionnaires were sent by mail with return envelopes and stamps. Telephone reminders were used to stimulate responses.

The content of the questionnaires was divided into four parts (Figures 1–3). In part 1 (profile of the respondents), the questions asked for their surgical practice experience, especially whether they had any laparoscopic experience and whether they were performing any type of bariatric surgery as the operator or as the assistant. In part 2 (basic knowledge of the respondents about bariatric surgery), questions were concerned about the very basic knowledge of obesity and bariatric surgery. They were asked about the definition of BMI, the indication of bariatric surgery, the mechanisms of action underlying gastric banding and gastric bypass. The answers from the
respondents were grouped as correct if they could answer all the questions correctly. When the answers were not completely correct or when no answer was written because they admitted that they did not know the correct answer, the answers were grouped as incorrect. In part 3 (opinions regarding the treatment of obesity and bariatric surgery), the questions asked whether they agreed with the concept and practice of recommending bariatric surgery to morbidly obese people who fulfilled the indication for surgery. They were then asked about the reasons why they agreed or disagreed with the recommendation of surgery (see details of the questions in Figure 2). They were provided with multiple choice answers as well as an open space for essay type answers. Part 4 of the questionnaire asked about the respondents’ opinions as to why bariatric surgery was not so popular in Thailand. The choices of answers in the multiple choice sections of Part 3 and Part 4, which were aimed at getting the respondents’ attitudes, included some intentionally incorrect answers in the choices in order to test whether their responses were always based on correct knowledge and concepts. Examples of these intentionally false answers were the statements that “bariatric surgery resulted in weight loss without the need to control diet and exercise”, “bariatric surgery was not effective in reducing weight”, “strengthening the willpower of obese people for diet control would be more effective than surgery” and “bariatric surgery caused severe malnutrition which was more dangerous than the obesity itself”, etc.

The responses were carefully analysed. Statistical analysis was applied whenever suitable using Student’s t-test for continuous outcomes and chi-squared or Fisher’s exact test for categorical outcomes. The information and opinions received in this survey reflect the cross sectional data in March 2008.

**Figure 2.** Part three of the questionnaire.
Results

Out of 500 questionnaires sent, 169 responses were received. Two of them stated that they had already retired from practice and declined to give answers. Out of the remaining 167 respondents, 38 were not doing any laparoscopic surgery. One hundred and twenty-nine were practicing laparoscopic surgery, mainly cholecystectomy. Out of these laparoscopic surgeons, five of them had had experience in bariatric surgery, ranging from two cases to about 100 cases. There were four surgeons who had been involved in laparoscopic bariatric surgery only as assistant to the surgeons. These four surgeons were junior surgeons who were doing laparoscopic cholecystectomy as well as assisting in some advanced laparoscopic procedures. All of the respondents had been in practice for 1–5 years, although the questionnaires were sent to surgeons without age discrimination.

Test of knowledge concerning obesity and bariatric surgery

Three questions were specifically included in the questionnaires to test the actual knowledge of the respondents. The number of respondents who gave correct answers was compared between the groups of non-laparoscopic surgeons, laparoscopic surgeons who did not practice bariatric surgery and surgeons who were doing bariatric surgery. Surgeons who had experienced bariatric surgery gave correct answers to all these questions.

To the question “What is the definition of BMI?” (Table 1), 52.6% (20 in 38) of non-laparoscopic surgeons gave correct answers whereas 63.3% (76 in 120) of laparoscopic surgeons who did not have bariatric surgery experience gave correct answers. Only 25% (1 in 4) of those surgeons who only assisted in bariatric surgery could give correct answers.

To the question “What are the indications of bariatric surgery?” (Table 2), only 10.5% (4 in 38) of non-laparoscopic surgeons could answer them correctly, whereas 28.3% (34 out of 120) of laparoscopic surgeons who did not practice bariatric surgery gave correct answers. To the question “What are the mechanisms of weight reduction following gastric banding and gastric bypass?” (Table 3), no one in the non-laparoscopic group gave the correct answers. Only 13.3% (16 out of 120) of laparoscopic surgeons

Table 1. Number of respondents who gave correct and incorrect answers about the definition of body mass index (BMI), categorised according to whether they were laparoscopic surgeons or not and whether they were performing bariatric surgery

<table>
<thead>
<tr>
<th></th>
<th>Correct</th>
<th>Incorrect</th>
<th>p</th>
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</thead>
<tbody>
<tr>
<td>Non-laparoscopic (n = 38)</td>
<td>20 (52.6%)</td>
<td>18 (47.4%)</td>
<td>0.24*</td>
</tr>
<tr>
<td>Laparoscopic, no experience (n = 120)</td>
<td>76 (63.3%)</td>
<td>44 (36.7%)</td>
<td>0.11†</td>
</tr>
<tr>
<td>Bariatric surgeon (n = 5)</td>
<td>5 (100%)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Assistant (n = 4)</td>
<td>1 (25%)</td>
<td>3 (75%)</td>
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</table>

*Comparing non-laparoscopic and laparoscopic surgeons; †comparing non-bariatric surgeons (non-laparoscopic and laparoscopic, no experience) with bariatric surgeons.
who had not experienced bariatric surgery gave correct answers. The differences in the rates of correct answers were statistically significant when comparing non-laparoscopic surgeons with laparoscopic surgeons who were not practicing bariatric surgery. The group of bariatric surgeons could all give correct responses.

Attitudes towards the indication and practice of bariatric surgery

When asked whether they noticed that the number of obese patients in their practice had increased recently, only 100 of the 167 respondents (59.9%) agreed that it was increasing. At least 37 surgeons (22.1%) did not think that obesity was on the rise and the other 30 (18%) declined to answer because they did not know or observe it.

The questionnaires asked whether they agreed with the recommendation of weight reduction surgeries to obese patients who met the indication for bariatric surgery (Table 4). Only 36.8% and 53.3% of those respondents who were not laparoscopic surgeons and those who were laparoscopic surgeons but had not experienced bariatric surgery agreed with this practice of offering bariatric surgery to obese patients who met this criteria. These responses were statistically significantly different from the bariatric surgeons’ idea (Table 4). Surgeons who noted that obesity was increasing and those who did not observe any rise in obesity prevalence both agreed and disagreed in almost equal proportion.

The respondents who agreed with recommending bariatric surgery to obese patients were asked for the reasons...
that made them agree with the concept. Likewise, those who disagreed with the practice of recommending surgery to these patients were asked for their reasons. Figures 4 and 5 show their reasons. It was noteworthy that those surgeons who were not performing bariatric surgery gave false statements as their reasons in 10–65% of their responses, whether agreeing or disagreeing. One example was that only 76% and 40% of these two groups of respondents...
Figure 6. Those who disagreed with the recommendation of bariatric surgery to obese patients who fulfilled the indications for bariatric surgery were asked to give the specific conditions of obese patients whom they would reconsider their stance with and send for surgery. The figures in the chart show the percentage of these choices categorised into assistants of bariatric surgery \((n = 3)\), laparoscopic but non-bariatric surgeons \((n = 50)\) and non-laparoscopic surgeons \((n = 22)\). All the bariatric surgeons agreed with the indication, and therefore no answers were noted from this group.

Table 5. Comparison of percentage of surgeons working in government hospitals vs. private hospitals who could give correct answers to the questions

<table>
<thead>
<tr>
<th>Questions</th>
<th>Surgeons who gave correct answers (%)</th>
<th>(p)</th>
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<tbody>
<tr>
<td></td>
<td>Government hospitals ((n = 91))</td>
<td>Private hospitals ((n = 64))</td>
</tr>
<tr>
<td>Definition of BMI</td>
<td>70.33</td>
<td>56.25</td>
</tr>
<tr>
<td>Names of comorbid conditions</td>
<td>57.14</td>
<td>56.25</td>
</tr>
<tr>
<td>Indications for bariatric surgery</td>
<td>50.55</td>
<td>42.19</td>
</tr>
<tr>
<td>Mechanism of gastric banding</td>
<td>42.86</td>
<td>53.13</td>
</tr>
<tr>
<td>Mechanism of gastric bypass</td>
<td>9.9</td>
<td>21.87</td>
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chose the statement that surgical intervention could maintain reduced weight better than conventional methods (Figure 4). It has been well accepted that this principle is the major reason for a surgical approach in obesity and should be expected to be the answer given by all surgeons who would recommend it to obese patients. Another example was that more than 60% of the respondents who did not agree with bariatric surgery cited that strengthening patients’ willpower by psychological means would be more effective than surgery in weight reduction (Figure 5), which is not true. Those respondents who disagreed with bariatric surgery still believed that in special situations they might seek surgical intervention (Figure 6). Most of the choices given were truly parts of the definitions of morbid obesity, which was the indication for surgery. This meant they did not understand the indications for bariatric surgery. However, about 40% of them chose congestive heart failure, which is a contraindication of surgery in these patients.

Knowledge and attitude of surgeons working in government versus private hospitals
Since the hospitals of all the respondents were recorded, we investigated whether the surgeons who worked in government and in private hospitals might have different levels of actual knowledge and attitudes about morbid obesity and bariatric surgery. Table 5 shows the percent of respondents who could give correct answers to each of
the questions that asked for the definition of BMI and comorbid conditions of obesity, indication for bariatric surgery and the mechanisms of both gastric banding and gastric bypasses. There was no statistically significant difference between the surgeons working in government and private hospitals. Likewise, a similar percentage in both groups (45.05% and 50.0%) agreed with the recommendation of bariatric surgery (Table 6).

Table 6. Comparison of percentage of surgeons working in government hospitals vs. private hospitals who agreed with the recommendation of bariatric surgery when there was indication

<table>
<thead>
<tr>
<th>Surgeons who agreed (%)</th>
<th>Government hospitals (n = 91)</th>
<th>Private hospitals (n = 64)</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree with surgery</td>
<td>45.05</td>
<td>50.0</td>
<td>0.66</td>
</tr>
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</table>

The reasons why bariatric surgery is still not popular in Thailand

All the respondents were then asked to give their opinions explaining why bariatric surgery was not as popular as expected. The reasons are shown in Table 7. The top five choices were, respectively, as follows: surgeons’ fear of high surgical risk that characterised the obese patients, high cost of surgery, obese patients mostly not interested in taking the risk of surgical means to reduce their weight, ethical issues and the idea that these patients were in fact still healthy and it was not justifiable to persuade them to have surgery. Other reasons that were chosen by more than 25% of the respondents included the idea that obesity was not a national health care priority, the fact that obese patients would rather have some form of cosmetic surgery than bariatric surgery and that they were not willing to seek medical advice about their weight problems.

Table 7. Respondents’ opinions on why bariatric surgery is not popular in Thailand despite its increasing popularity in other countries*

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Percent of respondents</th>
</tr>
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<tbody>
<tr>
<td>Surgeon’s fear of surgical risk in obese patients</td>
<td>56.6</td>
</tr>
<tr>
<td>High cost of surgery</td>
<td>49.1</td>
</tr>
<tr>
<td>Patients not interested in weight reduction by surgery</td>
<td>47.2</td>
</tr>
<tr>
<td>Ethical issues</td>
<td>35.8</td>
</tr>
<tr>
<td>They look healthy, why take the risk?</td>
<td>35.8</td>
</tr>
<tr>
<td>Obese patients unwilling to seek medical advice</td>
<td>32.7</td>
</tr>
<tr>
<td>Obese patients would rather have cosmetic surgery</td>
<td>30.8</td>
</tr>
<tr>
<td>Surgeon’s risk of being sued</td>
<td>29.1</td>
</tr>
<tr>
<td>Obesity not national priority</td>
<td>28.9</td>
</tr>
<tr>
<td>Medical means more cost-effective than surgery</td>
<td>26.4</td>
</tr>
<tr>
<td>Difficult surgery</td>
<td>17.6</td>
</tr>
<tr>
<td>Complication rate seems to be too high</td>
<td>6.3</td>
</tr>
</tbody>
</table>

*Each respondent could give more than one answer. The figures in this table represent the percentage of respondents who selected each option (n = 167).

Discussion

Despite the fact that bariatric surgery is very popular and increasingly performed in many countries around the world, it is still not so popular in this country. It is apparently not because laparoscopic techniques are unknown to Thai surgeons since laparoscopic cholecystectomy has been well accepted as a standard technique for gallbladder stones. Likewise, hernia repair, appendectomy, colon resection and adrenalectomy are using the laparoscopic method. It was thus interesting to find out what really caused the slow progression of this treatment modality in this country. Surgeons’ thinking should have contributed to this slow progress; and was the purpose of this study. In fact, patients’ knowledge and attitude should have played a big part in this phenomenon. This might need another bigger scale of surveillance.

The purpose of the questions in the questionnaire was to assess the actual knowledge of each general surgeon regarding morbid obesity and bariatric surgery, and to correlate it to his or her opinion of applying bariatric surgery into clinical practice. The correct answer about the definition of BMI was the ratio of the weight in kilograms by the square of the height in metres (weight in kg/height in m\(^2\)). The current indication for bariatric surgery are a BMI of over 35 kg/m\(^2\) with at least one comorbid condition, or a BMI of over 40 kg/m\(^2\) with or without comorbidity. For the questions about the mechanisms of gastric banding and gastric bypasses in inducing weight loss, the correct answers should include the restriction of food intake alone for gastric banding, and the restriction and reduced nutritional absorption for gastric bypasses.
The benefit of bariatric surgery should include its efficacy in reducing and maintaining the reduced weight. By effective weight reduction, all the comorbid conditions that are associated with obesity should be improved or alleviated. However, bariatric surgery might have a small rate of mortality and certain specific types of morbidity. These would include leakage of anastomosis, slippage and prolapse of the gastric band, and malnutrition in cases of gastric bypass and biliopancreatic diversion.

The surgeons who answer this questionnaire need to have correct knowledge about obesity, BMI, indication for surgery, types of surgery and mechanisms of weight reduction as well as the risks of mortality and morbidity, before they can adopt a sound principle of practice of their own. Therefore, the testing of their actual knowledge before giving their opinions is a good indicator of their rationale.

There was a study in Connecticut surveying primary care physicians about their knowledge and attitude about bariatric surgery. The finding indicated that only about one quarter of the family practitioners recognised that gastric bypass resolved or significantly improved DM and about two thirds of them incorrectly thought that the mortality rate from obesity surgery was much more than the reported figure in all current literature.

The findings of this study were quite interesting. It might not be exaggerating to state that surgeons themselves were a part of this obstacle. The situation arose from a lack of knowledge about obesity and bariatric surgery. From the results of this present study, even with regard to the most basic knowledge of obesity like the definition of BMI, only 52.6% of general surgeons who were not practicing laparoscopic surgery could give the correct definition of BMI. Even more surprisingly, only 63.3% of laparoscopic surgeons could give the correct definition of BMI if they were not practicing bariatric surgery themselves. This suggested that almost half of the general surgeons did not clearly know the definition of obesity as a disease. When the questions probed deeper into more detailed knowledge of bariatric surgery, such as the indications for surgery and the mechanism of action of each of these procedures, less than 20% were adequately knowledgeable. The other 80% guessed or could not answer at all. Almost half of the general surgeons did not observe the rise in the prevalence of obesity in the Thai population, despite the statistics that show the same trend of increased prevalence as in other countries in the world.

However, whether or not they had observed the increased numbers of obese patients did not affect their attitudes about the advisability of bariatric surgery to morbidly obese patients. Altogether, these findings indicate that the surgeons were not aware of the medical problems in obese people and did not have the knowledge about how to deal with them.

It was not a surprise that all of the bariatric surgeons agreed with recommending bariatric surgery to morbidly obese patients who met the indication. However, almost half of the others disagreed with this concept. The laparoscopic surgeons (who were not practicing bariatric surgery) tended to agree more than the non-laparoscopic surgeons; but this difference was not statistically significant (Table 4). When the reasons underlying their opinions were revealed, the reasons were quite interesting (Figures 4 and 5).

It has been well accepted by many studies and reports that surgery can not only effectively reduce weight but also can maintain the reduced weight in the long term. Every surgeon who had been practicing bariatric surgery gave this rationale in their responses. However, the surgeons who answered that they agreed with this recommendation did not realise this fundamental fact; only 40% of the laparoscopic non-bariatric surgeons gave this reason for their choice of advising bariatric surgery to the morbidly obese (Figure 4). Likewise, it is the principle of any bariatric surgery that patients need to control their diet and to have regular exercise and follow-up visits if the surgery is to be effective in reducing their weight. These choices (“Needs less dieting and exercise” and “Needs no follow-up”, Figure 4) therefore should not be selected as the reasons favouring surgical treatment; but in this study, 20–40% of the non-bariatric surgeons chose them.

More than 60% of the respondents who did not agree with the concept of recommending surgery to morbidly obese patients who met the surgical indication had the opinion that if these people could be encouraged to strengthen their willpower in dieting and exercising, this would be more effective than surgery. In fact, it has been proved that conventional methods of weight reduction are not effective and bariatric surgery is very effective in weight reduction. Its cost effectiveness has also been confirmed. When the respondents who disagreed with bariatric surgery were asked to give the situations in which they thought it might be suitable for them to advise bariatric surgery, only 20% still insisted that surgery
should not be recommended at all. The other 80% selected to advise surgery in various situations such as uncontrolled DM, hypertension, osteoarthritis and respiratory problems. All of these are in fact factors in the definition of morbid obesity and are indications for bariatric surgery. These findings suggested that surgeons are divided into two equal groups having opposite attitudes towards the practice of weight reduction surgery. Their attitudes are not necessarily based on currently accepted facts and concepts, but rather on their own personal beliefs, which may be incorrect in some aspects.

It was interesting to investigate the reasons slowing the progress of bariatric surgery in this country. Reasons seemed to be grouped into three equally distributed areas. The first was concern about the increased risk of surgery in this population of patients. The second was the expense and cost effectiveness of the procedure compared to conventional obesity treatments. The third was related to the patients themselves, namely, the lack of interest in seeking surgeons’ advice, the preference for cosmetic procedures rather than bariatric surgery, and the ethical issues in recommending these patients for surgical intervention.

Surgical and anaesthesiological risks in morbidly obese patients were a common concern to all surgeons and the threat is quite real. This led to some of the surgeons believing that to subject these patients to the risk of surgery when they were appearing quite healthy might not be justifiable. However, if careful preoperative assessment is conducted to ensure good surgical candidacy, a laparoscopic procedure in these patients is quite safe. The safety of various laparoscopic bariatric procedures that did not have complications have been reported in the literature. When complications do occur, early detection and appropriate intervention can result in a low rate of morbidity and mortality. Therefore, with experience and careful surgical techniques, surgery in obese patients is quite safe and the worries of surgeons who have never experienced surgery in the obese are unwarranted.

It is known that the expenses of laparoscopic procedures are high, especially in developing countries where every piece of instrument need to be imported. However, it is also known that the expenses of well-conducted medical or conventional strategies of weight control are also high, taking into consideration the long duration of treatment for these obese patients. This has to be added to the high proportion of ineffective response and the high rate of weight regain after apparent weight loss or the “yo-yo” effect. In fact, many reports have confirmed the cost-benefit of surgical over conventional methods in weight reduction and maintenance. The nation’s burden to cope with the comorbid diseases of obesity should also be brought to attention. This latter factor seemed to be overlooked by the surgeons, as evidenced by their view that obesity is not the nation’s health priority.

The belief that obese people are not interested in seeking proper medical advice, especially when it might involve surgery might not be true. If this were true, then bariatric surgery would not have gained rapid popularity in America, Europe and Australia in recent years. However, patients’ own attitudes about surgery might have been distorted by a lack of knowledge. In Thailand, the media is flooded with recommendations of various weight control programs offered by cosmetic medicine centres. Various modern as well as herbal medications have been promoted in the newspapers and other mass media. Cosmetic surgery in the form of liposuction or lipectomy is better known to patients than bariatric surgery; this has caused confusion to patients. The concept and mechanism of bariatric surgery is much more complicated and difficult to understand compared to simple liposuction. The beneficial effects on DM and hypertension as well as other comorbidities are not stressed in the media. All of these factors, coupled with the apparently high cost of surgery, meant that most patients are unable to make a proper decision regarding surgical treatment.

Knowledge that may be conveyed to patients through the press and mass media should be conducted by surgeons. Unfortunately, the surgeons’ own opinion or thinking was not so favourable because of lack of proper knowledge about obesity and bariatric surgery, as shown in this study. At the very least, surgeons should be equipped with basic knowledge of the definition and adverse effects of obesity, the risk of mortality and morbidity that accompany obesity, the indications for bariatric surgery, the cost-benefit and final outcome in terms of weight reduction and the improvement of the comorbid conditions of obesity made possible by surgery. More laparoscopic surgeons should be taught to perform common procedures of bariatric surgery. Only with such efforts can the proper attitude be brought to the lay population and obese people in particular so that the benefits of this effective form of treatment can be transferred to the population at risk in this country.
It should probably be noted that only those surgeons who had been in practice for 1–5 years responded to this survey and the author did not discriminate on the basis of the respondent’s age apart from senior surgeons who were known to have retired from practice. Perhaps this reflected a lack of interest in more senior surgeons regarding the emergence of this modality of treatment. It was impossible for this study to determine the underlying reasons for this and further survey specifically among senior practicing general surgeons should be planned in the future. The aim of this future study should investigate whether they have no interest in bariatric surgery or whether they really have no knowledge in answering questions about obesity and its surgical treatment.

In the early phase of the development of laparoscopic cholecystectomy during the early 1990s, it was commonly perceived that surgeons in the private sector had more interest in learning the technique of the procedure than their counterparts who worked in the public or academic sector. In order to test whether this trend was mirrored in the early development of bariatric surgery in Thailand, the knowledge and attitudes of surgeons in private and government hospitals in this study were analysed and compared. It was found that both groups of surgeons had the same level of knowledge and attitudes regarding laparoscopic bariatric surgeries. This might be explained by the possibility that even surgeons in the private sector are not planning to practice bariatric surgery in the near future. This situation is different from the situation in the early 1990s when surgeons in private practice were very interested in learning and practicing laparoscopic cholecystectomy. The underlying reason might be the lack of actual knowledge about bariatric surgery since very little is taught in medical school. Or perhaps is it because they were all too aware of the high risk of surgery in obese people as a whole or the technical difficulty of the procedures themselves? If this is the case, giving sound knowledge to them by proper education and pointing out the low rates of mortality and morbidity as well as the cost-benefit ratio might have an impact on both their attitudes and practice in the future.

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References