

NEW ZEALAND BODYBUILDER SURVEY FINDINGS

Introduction by:

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My PhD at Massey University, New Zealand, focuses on the relationship between competitive bodybuilding and self-identity. I am interested in finding out how bodybuilders view themselves and the influence of bodybuilding in their lives. It thus considers competitive bodybuilding from the perspective of the bodybuilder, not anyone else. It is a three-year research project (Nov 2004 - Nov 2007) and the following survey results reflect the findings of a survey of NZ bodybuilders which I undertook in 2005 – the first phase of the project.

It is inclusive of:

- Those actively competing at present;
- Former competitors, and
- People in training for their first competition.

It was not restricted to elite bodybuilders or a particular gender. It includes those from a broad range of backgrounds and experiences.

The nature of the survey was exploratory, and will combined with data collected through other methods, such as in-depth interviews with competitive bodybuilders, to be undertaken in 2006.

Further information concerning my PhD, as well as additional documents pertaining to this survey, can be found on my web site: www.nzbb.info

About The Survey

The postal survey was comprised of fifty-five questions; including demographics (e.g. age, gender, and ethnicity), competitive bodybuilding details, training and opinions on a range of matters concerning bodybuilding. It was distributed to the current members of both bodybuilding associations in New Zealand (NZFBB and NABBA) as well as former members of NABBA (ie former competitors) and also emailed to some gyms. This took place during April/May 2005 and the survey was sent to approximately 1431 current, former and intending competitors. 382 completed questionnaires were received and analyzed.

Whilst its outcomes are valuable, all research, including this one, has its limitations. In particular, the responses to this survey should not be generalized as being reflective of all NZ competitive bodybuilders.

My thanks to all the bodybuilders who participated and the NZ bodybuilding associations who through their co-operation, made this piece of research possible.

Contents:

A. Who are the bodybuilders? A demographic overview

- Number and Gender of Respondents
- Location
- Ethnicity
- Age
- Employment and Qualifications
- Household Composition
- Other People In Respondents Lives Who have Also Been Competitive Bodybuilders.

B. Training and Competition: An insight into their competitive experience and training regime.

- Number of competitions
- Time since last competition
- Competition category
- Cardio vascular training
- Weight training
- Supplement use.

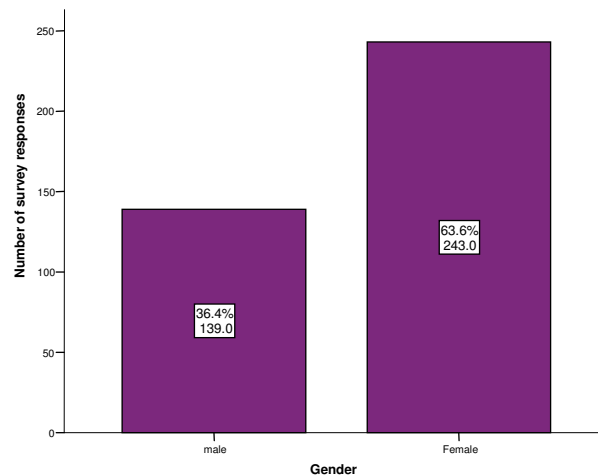
C. Bodybuilder opinions on a range of issues, such as:

- Body image
- Steroids
- Health and balance
- Lifestyle
- Masculinity and femininity

A. Who are the Bodybuilders?

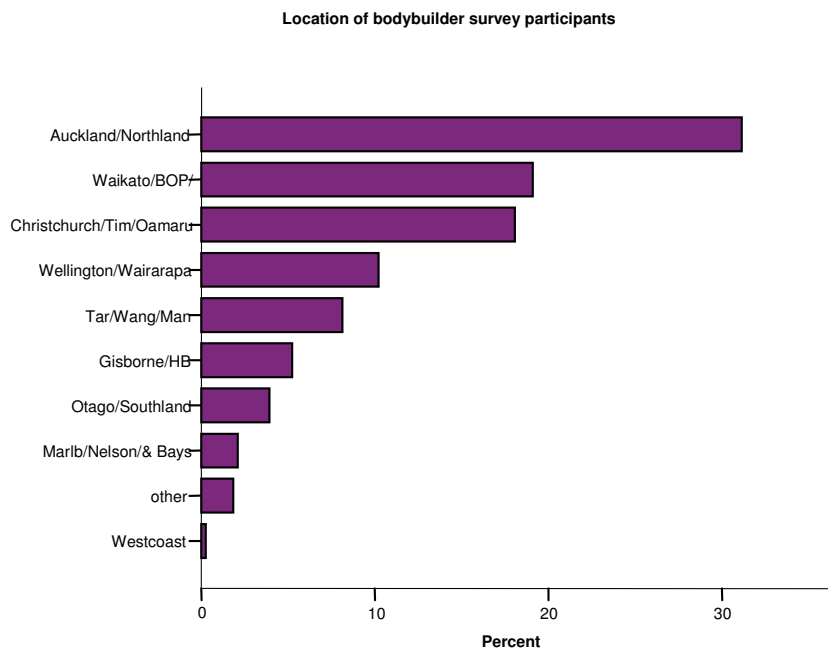
Number and Gender of Respondents

382 bodybuilders responded to the survey, the majority of which were female (63.6%).



Where Bodybuilder Respondents lived

Although responses were received from a broad range of geographic locations, most of the respondents resided in Auckland/Northland (31.2%), Waikato/Bay of Plenty (19.1%), Wellington (10.2%) and Christchurch (18.1%).



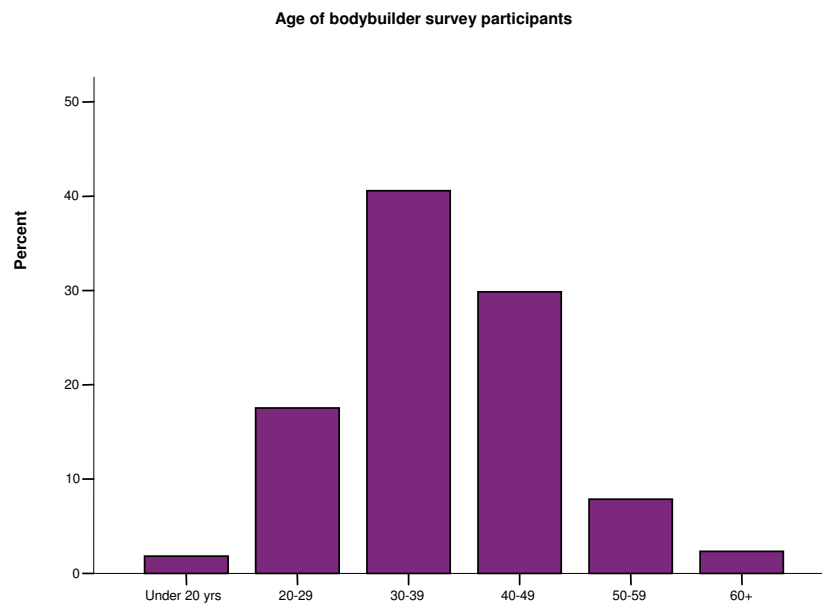
Ethnicity

The majority of respondents (82.8%) were of NZ European descent, although 12.2% identified with being Maori and a small percentage were of Pacific Island descent, such as Samoan, Tongan etc. 9% indicated they were affiliated with a range of with “other” ethnic groupings such as British, Dutch and German. (It should be noted that respondents could identify with more than one ethnic affiliation).

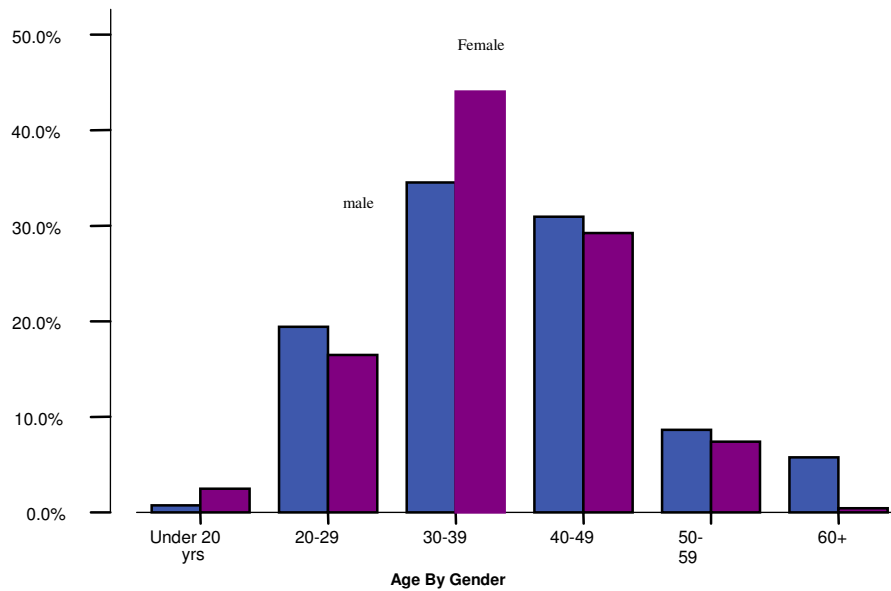
Ethnicity of respondents	N = Responses	% of Cases
NZ European	313	82.8
Maori	46	12.2
Samoan	4	1.1
Cook Island Maori	4	1.1
Tongan	2	0.5
Niuean	1	0.3
Chinese	4	1.1
Indian	1	0.3
Other	34	9.0
Total	409	108.2

Age

70.4% of respondents were aged between 30 – 50 years. Specifically, 40.6% of respondents were aged between 30-39 years and 29.8% aged 40-49 years. Less than 2% of respondents were under 20 years.

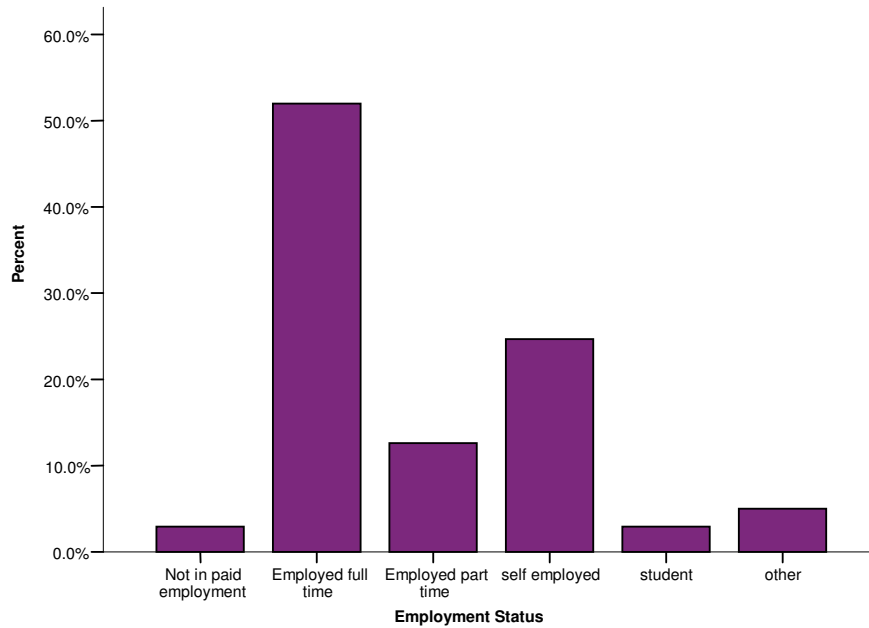


Analysis of age by gender indicated that although there were proportionately higher levels of female bodybuilders aged between 30-39 years and proportionately more male bodybuilders aged either 20-29 years or over 40 years. However in statistical terms, the difference was not significant.

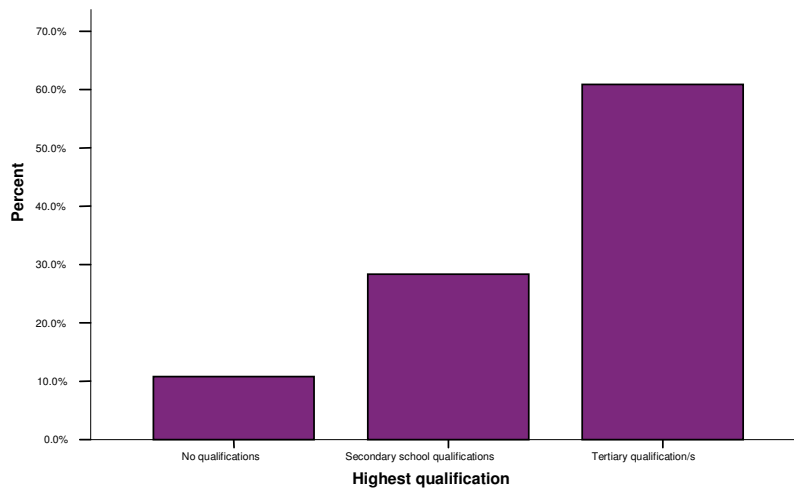


Employment and Qualifications

The majority of respondents (irrespective of gender) worked, either full time (51.8%), part time (12.6%) or were self-employed (24.6%). Although the majority of both male and female respondents worked full time, proportionately more female respondents worked part time than their male counterparts. Both genders displayed comparable percentiles in relation to self-employment.



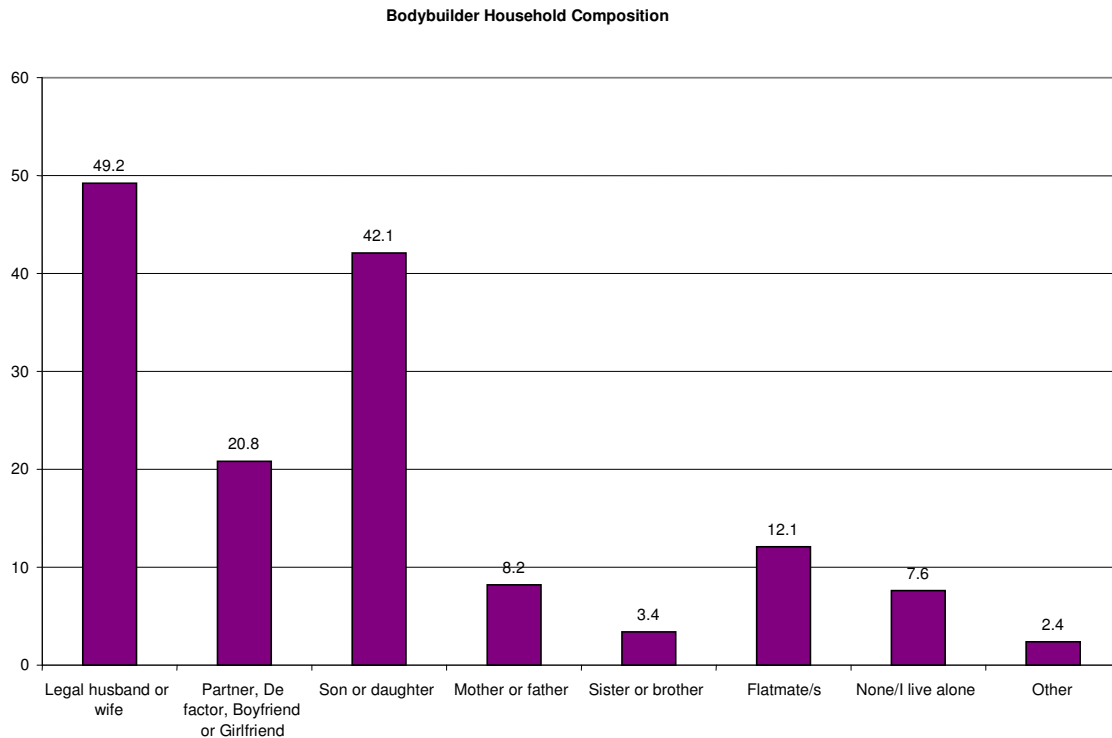
The majority of respondents were also tertiary qualified (60.9%). Tertiary qualified was defined in this study as completing a qualification after secondary school which has/have taken more than three months of full time study to achieve. Overall, bodybuilders survey respondents (irrespective of gender) tended to be qualified, skilled individuals who were professionally active.



Household Composition

This question was interested in finding out the household structure of bodybuilders. Did they live in households with others or did they reside on their own?

The majority of bodybuilders who responded to the survey (70.0%) were seemingly in relationships; residing in households with their husband/wife (49.2%) or partner (20.8%). 42.1% also had children in the household. 12.1% of respondents resided in a flatting situation and only 7.6 % of bodybuilders lived on their own.

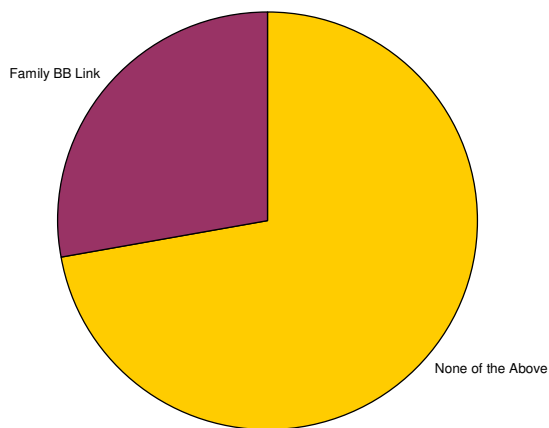


Other People In Respondents Lives Who have Also Been Competitive Bodybuilders.

This question was interested in finding out whether competitive bodybuilders tended to come from families where other members had also been bodybuilders.

The majority of survey respondents (74.5%) did not have any family members who had been competitive bodybuilders.

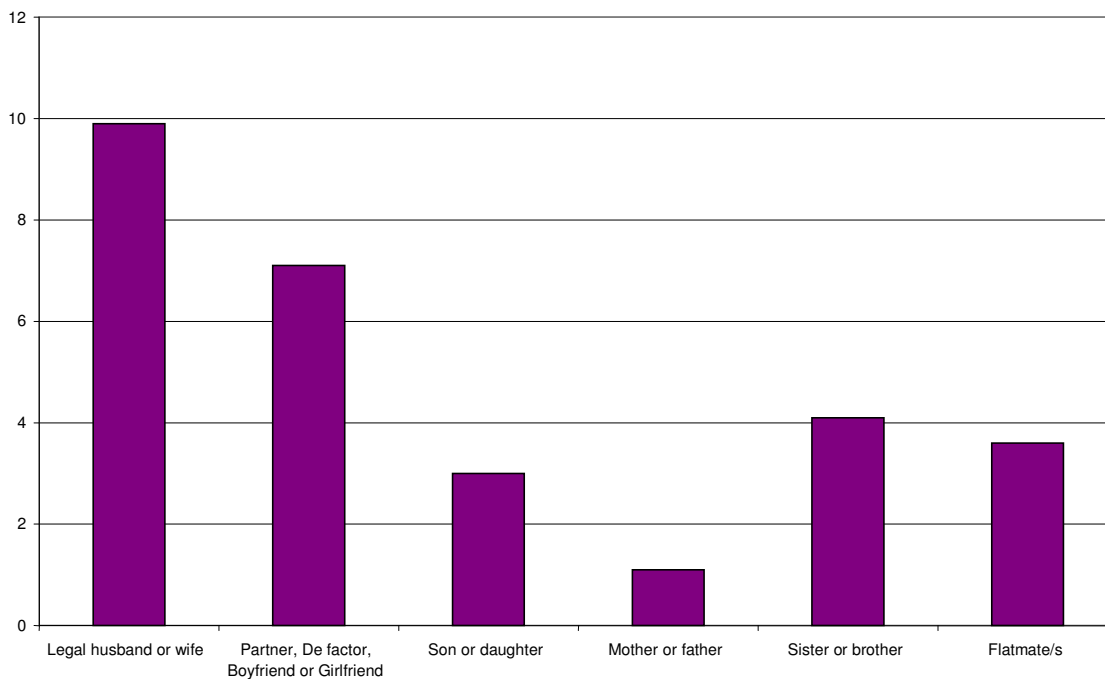
Other People Who had Been Bodybuilders



However 17% of bodybuilders indicated their respective husband/wife or partner are, or had been, competitive bodybuilders; 3% indicated their son's and/or daughters are or had been involved in the activity, 4% brothers or sisters and 1% mothers and/or fathers. A further 3.6% of bodybuilders who responded to the survey said their flatmates are (or had been) bodybuilders.

Whilst the nature of this question was primarily geared to family linkages, a further 24.7% of respondents ticked the additional column of "other" in relation to this survey question, to highlight non-family people such as close friends and personal trainers who had played a significant role in their bodybuilding activity.

Other People Who have Also Been Bodybuilders



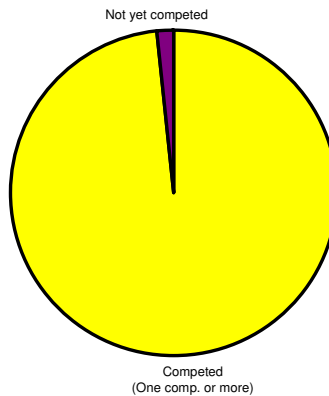
SECTION B: BODYBUILDING EXPERIENCE AND TRAINING

This section includes information such as how many competitions survey respondents have participated in, how recently they have competed and their choice of category. It also provides an insight into their training regime and use of supplements.

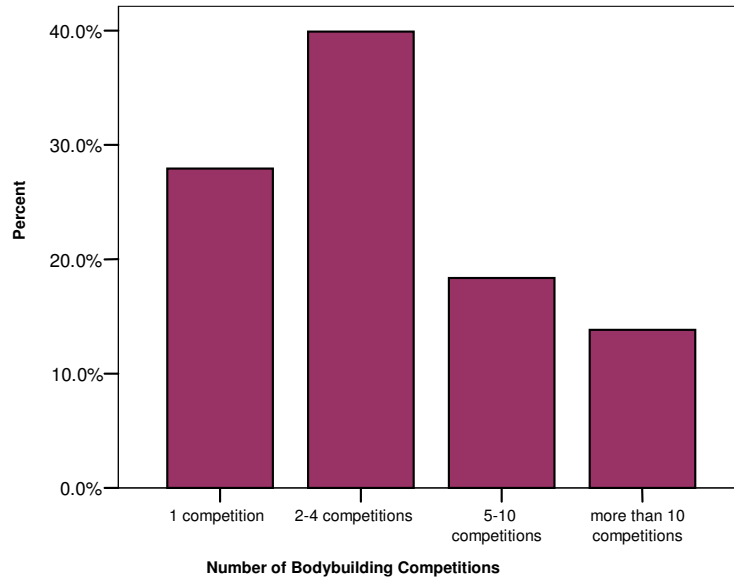
Bodybuilding Experience

The majority of people who responded to the survey are, or had been, competitive bodybuilders whilst a small percent were in training for their first competition. 98.4 percent of respondents had competed in one or more bodybuilding event, whilst the balance (1.6 percent) comprised participants who had not yet competed, but were intending to do so. This confirms that the profile of survey respondents were consistent with the criteria of being currently active, or former, competitive bodybuilders or individuals in training for their first bodybuilding event.

Competitive Bodybuilding Experience

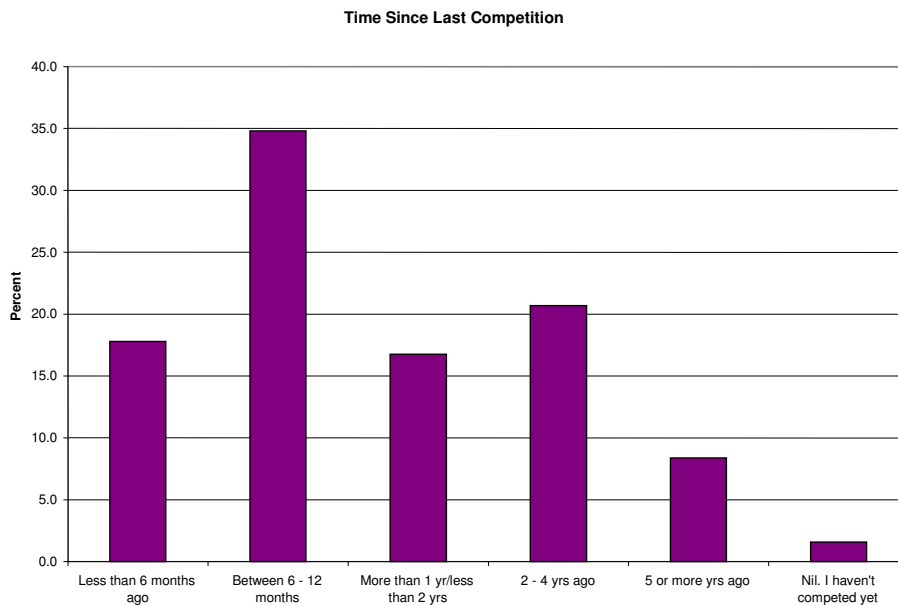


Of the respondents who had competed, 27.9 percent had competed once; 39.9 percent had competed in 2-4 competitions; 18.4 percent 5-10 competitions and 13.8 percent in 10 or more bodybuilding competitions.



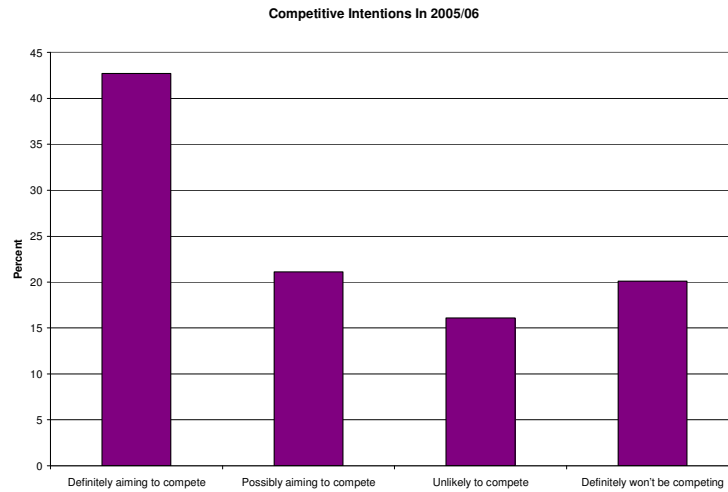
Time Elapsed Since Last Competition

The majority of respondents (52.6 percent) had competed in a bodybuilding event in the last 12 months. The survey also sought to include former competitors and it is noted that 29.1 percent of respondents had not competed for 2 or more years, of which 8.4 percent had not competed for 5 or more years.



Future Competitive Intentions

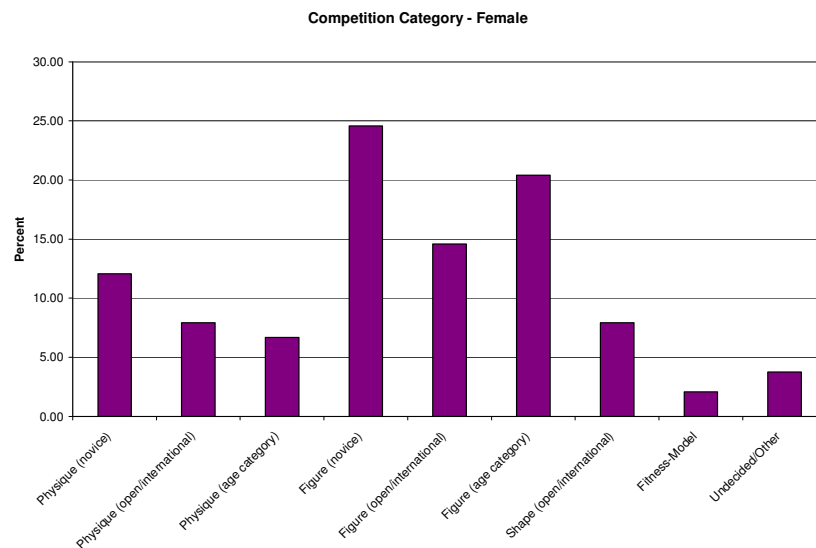
In 2005 or 2006, 42.7 percent of respondents were “definitely” aiming to compete again and a further 21.1 percent “possibly” aiming to compete. The remainder of the bodybuilder respondents were “unlikely”, or were “not intending” to compete. 19.8 percent identified October 2005 as the timing for the next competition which corresponds with both the NZFBB and NABBA National competitions.



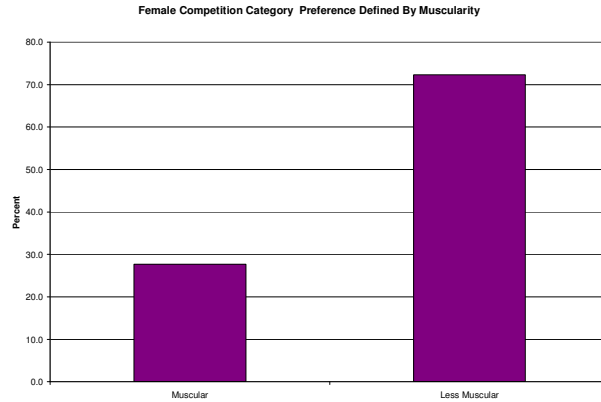
Competition Categories

Female:

The majority of female respondents competed (or intended to compete) in the category of Figure, in particular that of “novice” (24.6 percent) or an age subcategory (20.4 percent). 12.1 percent of respondents were Physique (novice) candidates. Shape was elected by 7.9 percent of respondents; proving to be on par with the Physique (Open) category.

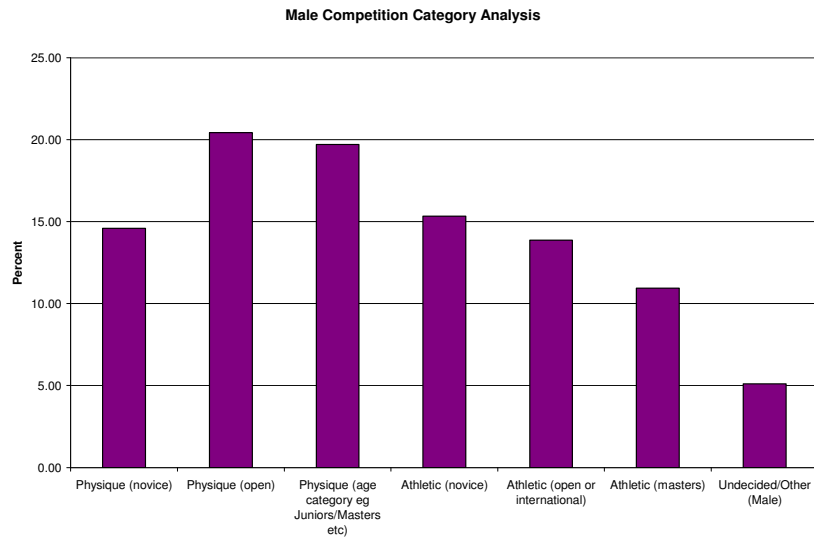


An analysis which groups competition categories by "muscularity" (by defining "Physique" as "more muscular" and "Figure, Shape and Fitness-Model" as "less muscular", whilst eliminating the "undecided" responses) highlights how those which encompassed a lower level of muscular mass and definition, were selected more frequently by female survey respondents, than the more muscular categories.

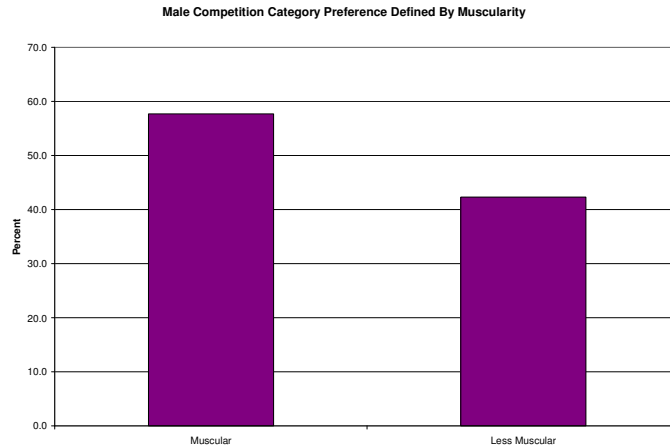


Male:

With respect to men, categories of Physique proved the most popular with 20.4 percent electing the open class followed by 19.7% choosing an age category. Athletic, which is a less muscular category offered by only one of the Bodybuilding Associations, emerged as being slightly more popular at a novice level (15.3 percent) than those electing a novice category of Physique (14.6 percent).



In a similar manner to the assessment of female respondents, an analysis of male competition categories by muscularity (by defining “Physique” as “more muscular” and “Athletic” as “less muscular”, whilst eliminating the “undecided” responses) highlights that the more muscular competition options were selected more frequently by male respondents.



Cardiovascular Training

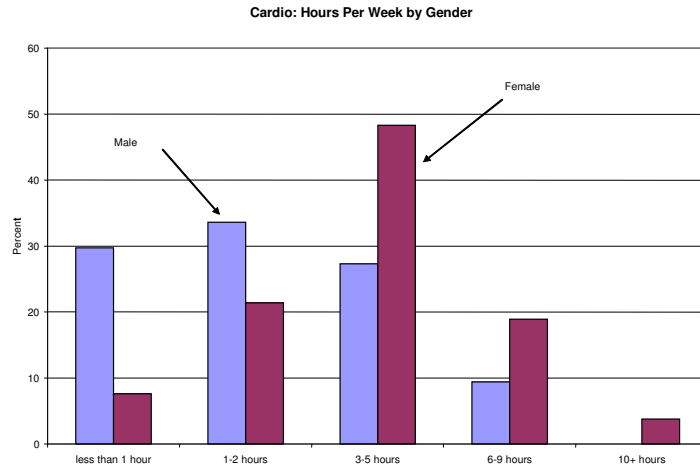
The majority of bodybuilders (41%) who responded to the survey stated they spent 3 - 5 hours per week on cardiovascular activity.

Table One: Cardio: Number of Hours Per Week

<u>Time on Cardio Per Week</u>	<u>Percent</u>
Less than one hour	15.3
1-2 hours	25.7
3-5	41.0
6-9	15.5
10+	2.5
Total	100%

However, further analysis also highlighted that women tended to spend more time doing cardio work than men per week. (Refer to graph below). Almost 34% of men spent 1-2 hours per week on cardio, 27% of men spent 3-5 hours and almost 30% spent less than one hour.

Conversely 48% of women spent 3-5 hours, 21% spent 1-2 hours and almost 19% spent 6-9 hours per week on cardio. Less than 8% of women spent less than 1 hour per week doing cardio.



Weight Training

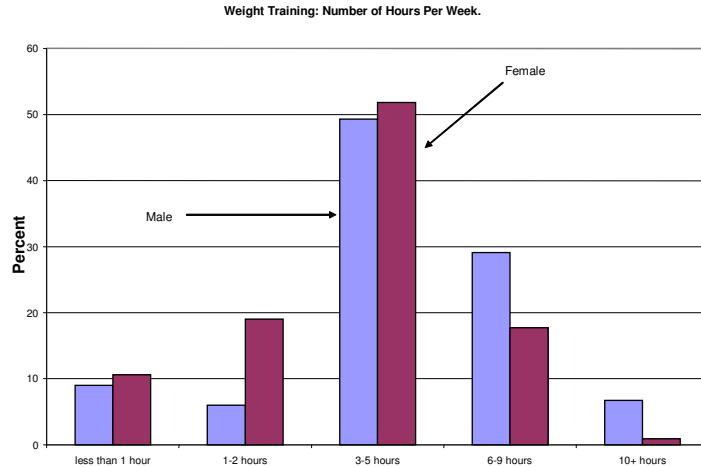
In addition to the cardio regime described above, the majority of survey respondents (50.8 percent) spent a further 3-5 hours per week doing weight training. Refer to Table 2.

Table Two: Weights: Number of Hours Per Week

<u>Time on Weights Per Week</u>	<u>Percent</u>
Less than one hour	10.0
1-2 hours	14.2
3-5	50.8
6-9	21.9
10+	3.1
Total	100%

A more detailed exploration of the results highlighted that men spent more time engaged in weight lifting per week than females.

Although the majority of both men and women spent 3 - 5 hours lifting weights per week, 29% of men spent 6-9 hours and almost 7% spent over 10 hours per week. Conversely 19% of women spent 1-2 hours lifting weights per week, and approx. 18% spend 5-9 hours.



Weight Difference Between Competition and Off-Season.

The majority of respondents (43.2 percent) to the survey indicated their off-season weight tended to be 5-9 kgs heavier than competition time. Refer to Table 3.

Table Three: Weight Difference: "Off Season" Verses "Competition"

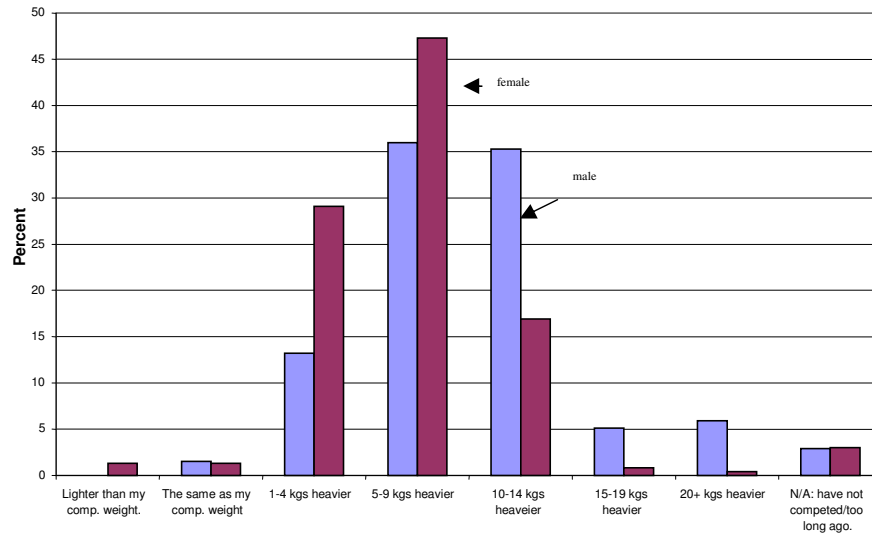
<u>Weight Difference</u>	<u>Percent</u>
Lighter than My Comp. weight	0.8
The same	1.3
1-4 kgs heavier than my comp weight	23.3
5-9 kg's heavier	43.2
10 – 14 kgs heavier	23.6
15- 19 kgs heavier	2.4
20 kgs or more heavier	2.4
N/A – haven't competed yet or too long ago	3.0
Total	100

Analysis by gender indicated a significant difference was found whereby the difference between competition and off-season weight was greater for males than females.

Although 36% of the male bodybuilders stated that their non-competition weight is 5-9 kgs heavier, a significant proportion (35%) stated their off-season weight was 10-14 kgs heavier.

With respect to women, 47.3% of respondents to the survey stated their non-competition weight was 5-9 kgs heavier, however a reasonable proportion (29%) stayed within 1-4 kgs of their competition weight in the off-season. 17% of female respondents stated they tended to be 10-14 kgs heavier off-season.

Gender Comparison: Weight Difference Between "Off-Season" and "Competition"

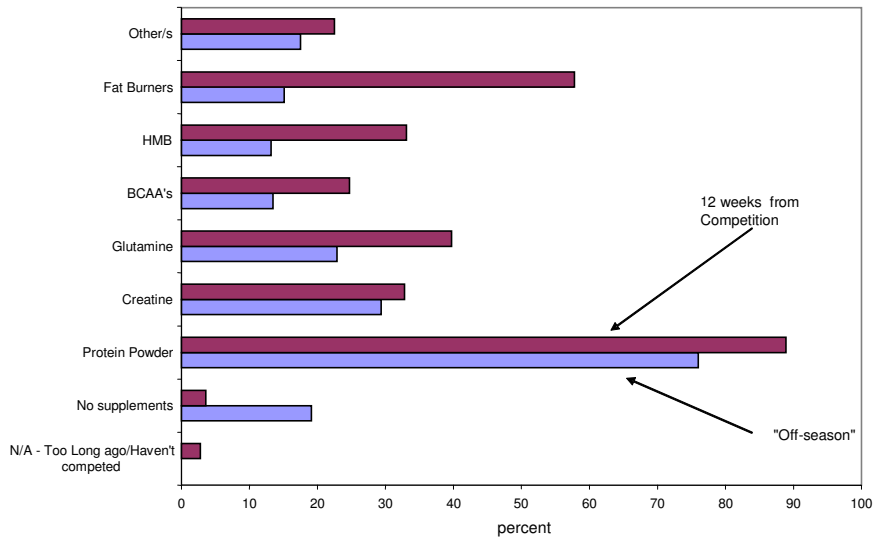


Use of Supplements

Supplement Use: Off-season Verses Pre-Competition.

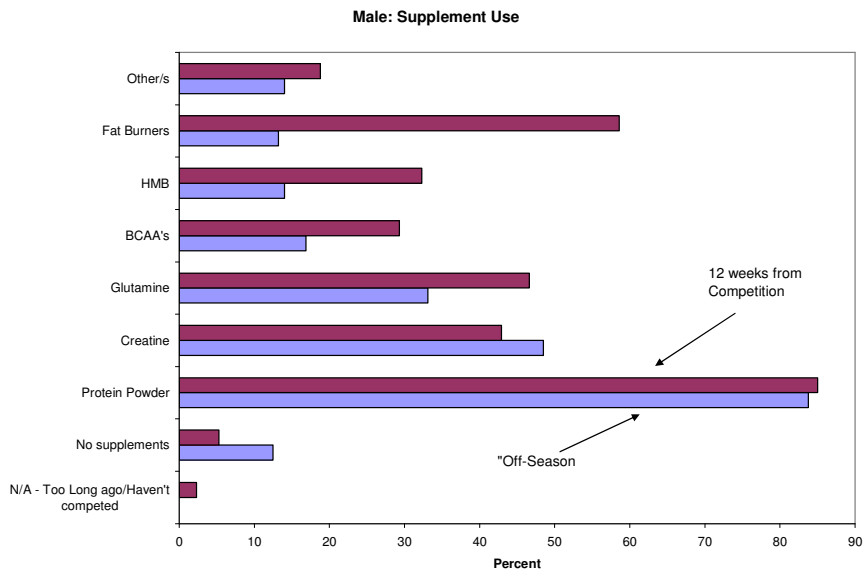
Competitive bodybuilders participating in the survey indicated that Protein powder (76 percent), creatine (29.4 percent) and glutamine (22.9 percent) were their most commonly used off-season supplements. Within 12 weeks of competition however, whilst protein powder remained the most commonly used supplement during this phase (88.9 percent), the use of fat burners increased significantly (57.8 percent) as did the muscular recovery agent glutamine (39.7 percent) and HMB (31.1 percent).

Use of Supplements - "Off-Season" compared with "12 Weeks from Competition".



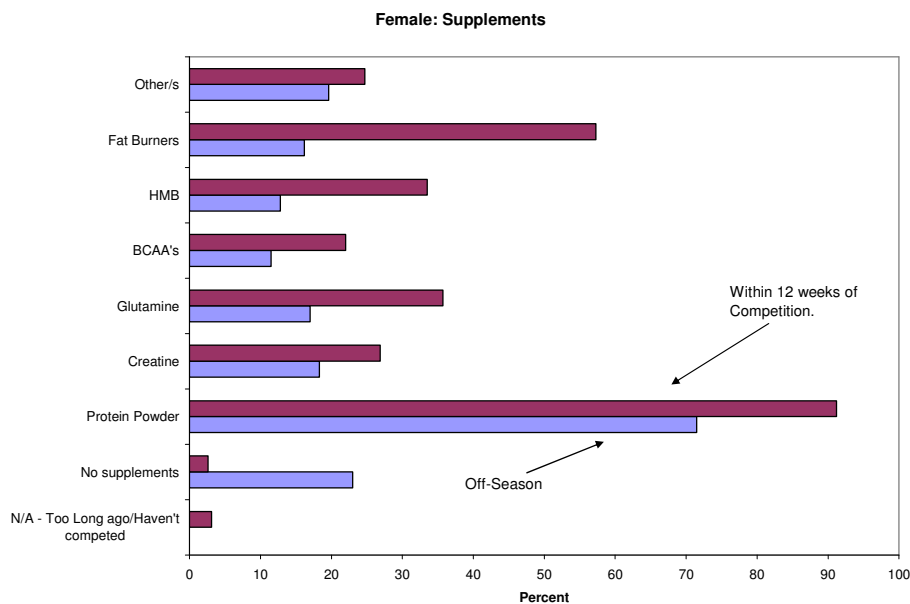
Male – Off-Season V Pre-Competition

With the exception of creatine, male bodybuilders tended to use more supplementation when they are within 12 weeks of competition.



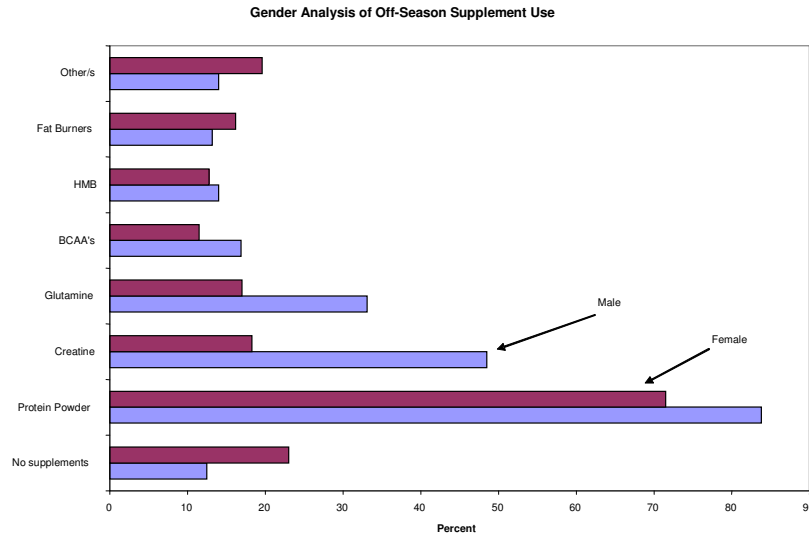
Female – Off-season Verses Pre-Competition

In a similar vein to men, female competitive bodybuilders participating in the survey indicated lower levels of supplement use off-season, when compared to the 12 week pre-competition window. Creatine however, tended to increase.



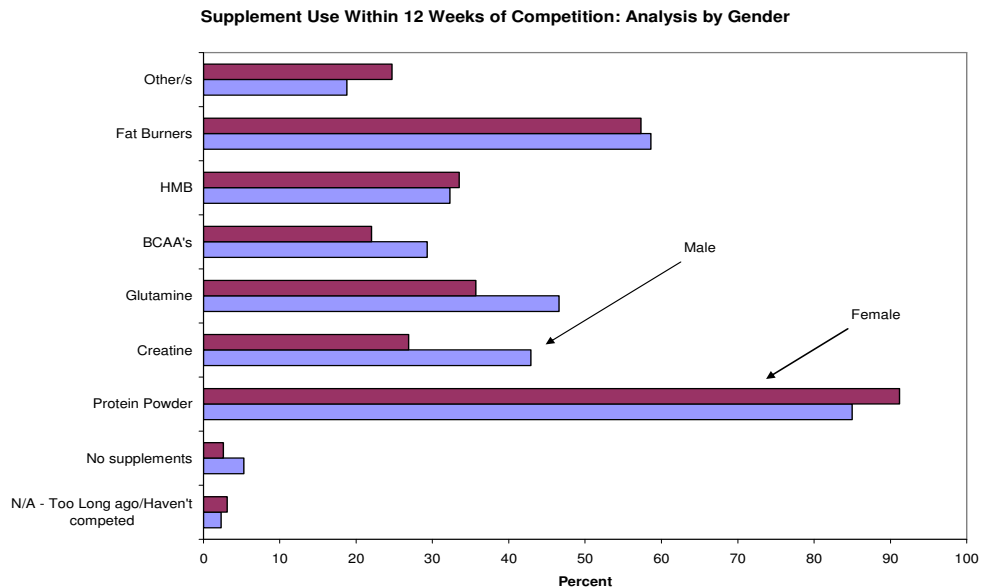
Gender Comparison: Off-Season

Off-season, with the exception of fat burners, female respondents tended to use less supplements than their male counterparts. It was noted that 19.6 percent of female respondents cited more readily “other” supplements, such as flaxseed oil and multivitamins which they incorporated into their dietary regime. This however, does not necessarily mean they were more frequent users of such forms of supplementation than their male counterparts.



Gender Comparison: Pre-Competition

However, at 12 weeks from competition, female respondents indicated a greater propensity to use protein powder and HMB than their male counterparts, whilst males were proportionately greater users of creatine, glutamine, BCAA's as well as fat burners.



Sources of Competitive Bodybuilding Information

Participants were asked about their main sources of competitive bodybuilding information.

Personal trainers (53.2 percent) and other bodybuilders (53.9 percent) comprised the prime information source of competitive bodybuilding information utilised by respondents. The internet also proved a favoured medium (32.4 percent).

Competitive Bodybuilder Respondent Information Sources

<u>Source</u>	<u>Percent of cases</u>
My personal trainer	53.2
Personal trainers employed by my gym	29.2
Other bodybuilders	53.9
Bodybuilding web sites	32.4
Bodybuilding magazines	30.5
Other	18.7

SECTION C: BODYBUILDER OPINIONS

Ratings Pertaining To Bodybuilding Statements.

Participants were provided with a list of 36 statements and asked to define on a scale from 1-4 the extent they agreed or disagree with the statements.

- 1 = strongly disagreed;**
2 = somewhat disagreed;
3 = somewhat agreed;
4 = strongly agreed.

The five statements which participants agreed with most, as reflected in the highest mean ratings included:

- I believe I have a balanced outlook on health and fitness (3.54),
- I am a disciplined person and bodybuilding helps me to demonstrate this (3.34),
- If I wasn't involved in bodybuilding I would still have the same personality (3.26),
- I consider I have a balanced lifestyle (3.24),
- When preparing for a bodybuilding competition I feel in control of my life (3.21).

The five statements which participants disagreed with the most included:

- Sometimes I wish I wasn't (or hadn't been) a bodybuilder (1.53).
- I would consider implants to obtain the ultimate bodybuilding shape (1.60)
- If steroids were legal, controlled and carefully planned use of them was an acceptable way to enhance bodily appearance (1.72),
- The majority of my friends are bodybuilders (1.73);
- I fear public ridicule when telling people I am involved in bodybuilding (1.85);

A list of all statements and their respective ratings are listed below.

Statement	Mean	SD
I believe I have a balanced outlook on health and fitness.	3.54	0.61
I believe I am a disciplined person and bodybuilding helps me to demonstrate this.	3.34	0.69
If I wasn't involved in bodybuilding, I would still have the same personality.	3.26	0.90
I consider I have a balanced lifestyle.	3.24	0.68
When preparing for a bodybuilding competition I feel in control of my life.	3.21	0.79
At bodybuilding events my prime aim is to win.	3.08	0.94
My bodybuilding physique makes me feel more sexually attractive.	3.06	0.79
I enjoy wearing clothes which display my physique.	3.04	0.83
Bodybuilding is an integral part of my lifestyle.	3.04	0.94

Relative to people of a similar age, I consider myself physically superior.	2.98	0.88
If female bodybuilders become too muscular, they become less feminine.	2.95	1.05
I am satisfied with how my body looks.	2.85	0.76
I consider participating in bodybuilding to be a healthy activity.	2.76	0.89
When preparing for a bodybuilding competition I feel in control of my emotions.	2.68	0.90
Participating in bodybuilding competitions is something which I do now, but isn't something I see myself doing long term.	2.68	1.04
I believe some aspects of bodybuilding are unhealthy, but I am willing to do what it takes in order to compete.	2.67	0.97
The muscularity of male bodybuilders enhances their masculinity.	2.67	0.94
I don't care what other people think about my body.	2.65	0.96
If I miss a workout I feel extremely guilty.	2.62	0.97
I consider those involved in bodybuilding to be mentally stronger than those who are not.	2.59	0.97
If steroids were legal, I believe they would be more acceptable for use by male bodybuilders than female bodybuilders.	2.51	1.10
My relationships suffer during bodybuilding training periods.	2.49	1.03
I feel "different" from other people because I am a bodybuilder.	2.43	1.01
I believe that bodybuilding is a form of vanity and obsession with bodily perfection.	2.41	0.97
When I tell people I am involved in bodybuilding, the reaction from women is usually more positive than men.	2.40	0.92
I don't restrict my diet post competition.	2.35	0.95
I have experienced concern and pressure from family and/or friends that I could become too muscular.	2.32	1.12
I believe bodybuilding in New Zealand is largely drug/steroid-free.	2.25	0.88
Bodybuilding has made me less sociable.	2.25	0.97
If I could eat junk food all day and still be lean and muscular, I would.	2.13	1.11
Other parts of my life have been negatively affected as a result of bodybuilding.	2.02	0.96

I fear public ridicule when I tell people I am involved in bodybuilding.	1.85	0.94
The majority of my friends are also bodybuilders.	1.73	0.85
If steroids were legal, I believe that controlled and carefully planned use of them is an acceptable way of enhancing bodily appearance.	1.72	1.08
I would consider implants (e.g pecs, breast, calf implants) in order to obtain the ultimate bodybuilding shape.	1.60	1.01
Sometimes I wish I wasn't (or hadn't been) a bodybuilder.	1.53	0.83

These results, in conjunction with other survey outcomes, provide preliminary insights on a range of issues. They will combine with more in-depth information, to be gathered via personal interviews with competitive bodybuilders in New Zealand, planned for 2006.

For further information concerning my PhD work, check out: www.nzbb.info