

## **Operant Subjectivity**

*The International Journal of Q Methodology*

# **Generating a Concourse Using Anecdote Circles: Exploring Students' Views of Obesity**

Laura A. Richardson  
Sue Ramlo  
*The University of Akron*

**Abstract:** Weightism is the unfair treatment of a person based upon preconceived judgment of body size. This study sought to investigate university students' views of obesity using the innovative approach of anecdote circles in association with Q Methodology (Q). Anecdote circles systematically capture representational stories to recognize the theoretical understandings that individuals have of a particular topic. Students' subjective perspectives related to obesity has received scarce attention. This lack of attention may be partially caused by difficulties in measuring subjectivity. The treatment of obesity is multifactorial and complex. It is important to recognize that weight bias and stigmatization may potentially obstruct patients' weight loss success. Multiple studies have substantiated the existence of weightism among healthcare professionals including those who deliver therapeutic exercise interventions in conjunction with other obesity treatments. Yet exercise therapy plays an important role in the mechanism of care for numerous chronic diseases such as obesity. This situation makes examining the perspectives about obesity of university students within an exercise science program a crucial starting point. This study explored, revealed and described university students' views of obesity and demonstrated how anecdote circles can strengthen the concourse and thus assist with the creation of the Q sample in Q Methodology research.

**Keywords:** anecdote circles, concourse, exercise science, Q methodology, stigma, weightism

## **Introduction to the Problem**

The National Health and Nutrition Examination Survey estimates that half of the United States population is either overweight or obese and many programs note that successful reduction of obesity necessitates a change in societal attitudes (Ogden, Carroll, Kit, & Flegal, 2014). Weight discrimination (weightism) is the unfair treatment of another person based upon preconceived judgment of body size. Despite treatment options available for patients of size, weightism among healthcare settings is pervasive as negative attitudes towards obese persons are socially acceptable (Puhl & Heuer, 2010). Weight stigmatization can lead to social identity complications. The treatment of obesity is multifactorial and complex and experiencing weight bias, stigmatization and prejudice may obstruct patients' weight loss success (Befort et al., 2006; Bocquier et al.,

2005; Thuan et al., 2005). Multiple studies have substantiated the existence of weightism among a multitude of healthcare professions.

Of particular interest, is the role of the Clinical Exercise Physiologist whose ability to delivery therapeutic exercise interventions in conjunction with other obesity treatments has been under-explored. Exercise therapy plays an important role in the mechanism of care for numerous chronic diseases such as obesity. Patients exposed to weightism inequities may experience reduced quality and outcome of care. Academic programs, in preparation for therapeutic exercise careers, begin with the Bachelor-level curriculum in Exercise Science. The Commission on Accreditation of Allied Health Education Programs (CAAHEP) defines Exercise Science as the study that is integrated into the academic preparation for professionals to work in the health and fitness industry, and are skilled in evaluating health behaviors and risk factors, conducting fitness assessments, writing appropriate exercise prescriptions, and motivating individuals to modify negative health habits and maintain positive lifestyle behaviors for health promotion. Identifying and addressing unfavorable negative attitudes at the pre-professional (student) level of training is an important mechanism for strengthening healthcare providers views of obesity (Teal et al., 2012; Wolf et al, 2010).

During the formative years of pre-professional education, students' discriminatory attitudes and beliefs are commonly unmindful to personal stigmatization towards obesity (Puhl & Brownell, 2001). Bias existing within the student population reflects vital need for the curriculum to commence with recognizing and identifying negative attitudes. Both students and professionals working in health-related settings may benefit from self-awareness of personal bias linked to the identification of negative weight-related stigmas of obesity (Puhl, Luedicke, & Grilo, 2014). The common thread in weightism studies is the concern that healthcare professionals' views of obesity may affect their clinical judgment and may deter obese individuals from seeking medical advice. Providing a robust education for pre-professional students is critical and, in the process, it is a priority to help minimize possible obesity bias and discrimination. Reducing weight bias and discrimination for pre-professionals has the potential to impact patient-care of weight management related outcomes. The prevalence of obesity stigmatization and discrimination is powerful, socially acceptable and widely under-explored (Puhl & Heuer, 2010).

Despite the increasing prevalence of obesity, negative societal attitudes have not attenuated (Puhl & Heuer, 2009) and it has been well documented over the past two decades that people of size are targets of discrimination (Puhl & et at., 2014). With the escalating trend of obesity and vast documentation of weightism, future exercise professionals will treat and assist many patients of size and negative obese views may create a barrier to providing quality care. Q Methodology was chosen as a method to explore and measure students' subjectivity. Measuring subjectivity can be difficult to quantify especially when addressing sensitive material such as negative or discriminatory perspectives. Q methodology is considered an exploratory mixed-method with its methodological underpinnings of an ontological, and epistemological framework providing more technical aspects which craft operant subjectivity (Ramlo, 2015a; Stenner, 2008-2009; Watts & Stenner, 2012).

An advantage of Q methodology is that all participants respond to the same set of Q statements and this is different from many other types of qualitative discourse analysis. Development of the statements begins with the construction of the concourse. The concourse is an exhaustive collection of items of communication relative to the topic and sampled representatively (McKeown & Thomas, 1988). Despite the numerous

avenues by means of which a concourse can be constructed, McKeown & Thomas (1988) note that using naturalistic (derived from respondents' oral or written communications) and ready-made samples (literature derived) are commonly used. Utilizing interviewing as a naturalistic means to gather respondents' communications reinforces the role of self-reference in the development of a concourse.

This article provides the rationale for and describes the process of constructing a concourse using facilitated narrative sharing known as "anecdote circles". The article is intended to demonstrate the use of systematically capturing representational stories to recognize the theoretical understandings that individuals and groups make of events. To aid in the development of the concourse, anecdote circles were chosen to permit the researcher to explore ideas related to a topic while providing representational stories about a specific topic through the lived experiences of the participants (O'Toole, Talbot, & Fidock, 2008). According to deChambeau & Ramlo (2017), anecdote circles have been shown to be an effective method for gathering discussions (stories) to provoke lived experiences. In addition to anecdote circles, the concourse for this study was also developed using prior university course evaluations and a thorough review of obesity literature.

## **Development of the Concourse**

The overarching goal of the concourse is for the researcher to obtain freely expressed comments of common knowledge relating to the topic while retaining naturalness (Brown, 1980). From the concourse, self-referent statements concerned with opinion, representing the topic are chosen by the researcher and create the Q sample. For this study, the concourse was developed using prior course evaluations, review of literature, and anecdote circles.

### **Anecdote Circles**

Anecdote circles are described as a form of storytelling technique that has been shown to be very useful in qualitative research. Storytelling, an active collaboration between researcher and participants, is a form of narrative inquiry and a way of understanding experience (Clandinin & Rosiek, 2007). Callahan, Rixon, & Schenk (2006) describe anecdote circles as being different from focus groups, interviews and surveys in that they are not seeking to answer a specific question or test a hypothesis but explore narratives among group members. Interviews and surveys are often filled with pre-determined thoughts of what the investigator may want to hear rather than revealing values and beliefs. Anecdote circles encourage semi-controlled group-based story-elicitation and have been used to overcome the limitations of traditional interview and survey approaches, conflict resolution, and difficult to evaluate projects in varying settings. Guidelines for effective participation are designed using broad topics to facilitate participants to share their experiences.

These unstructured facilitated sessions provide the researcher with a lens to illuminate people's understandings of topics. Circles consist of 4-12 participants drawn from the same setting to create an environment that supports open disclosure of experiences. One participant is assigned as the circle facilitator who holds a subtle profile role, acting as a guide, not as a leader encouraging all members in the group to share personal experiences conducive to the question being asked (Callahan et al., 2006). The role of facilitator is to ask open-ended questions to enable participants to recall events. The researcher provides the facilitator with written detailed guide to

follow. Storytelling, an active collaboration between researcher and participants, is a form of narrative inquiry and a way of understanding experience (Clandinin & Rosiek, 2007). The use of dialogue and shared stories using anecdote circles cultivates rich communications by eliciting lived experiences rather than just gathering opinions (Callahan, 2004).

Shared anecdotes provide lived experienced and beliefs that are captured providing a framework and justification of ideas used to build a comprehensive concourse. For this study, a total of 11 anecdote circles were conducted between two different university classes; Intro to Exercise Science and Cardiac Rehab Principles (Table 1.). Both courses were comprised of students pursuing the Bachelor of Science in Exercise Science. To provide a comprehensive landscape of students' experiences with obesity, a first year (freshman) and 4<sup>th</sup> year (senior) class were chosen for this study. One student in each group was designated the group facilitator to lead the anecdote circles (Appendix A). The preparation and execution of orchestrating anecdote circles can be best broken down and described in four easy to follow steps.

**Table 1. Composition of the 11 Anecdote Circles**

<b>Name of course</b>	Intro to Exercise Science	Cardiac Rehab Principles
<b>Level of course</b>	Freshman (1 <sup>st</sup> year)	Senior (4 <sup>th</sup> year)
<b>Curriculum</b>	General concepts providing overview of academic topics and potential job placement.	Pathophysiology of cardiovascular disease and treatment. Preparing students for employment with direct patient-care in clinical rehab settings.
<b># of total students</b>	30	20
<b># Anecdote Circles</b>	6 groups/circles	5 groups/circles

**Anecdote Circle Step 1: Designing effective key topic themes.** This initial preparation stage began with the creation of topics related to obesity. In anecdote circles, guidelines for successful participation must be designed using broad themes to facilitate participants to share their experiences and it is important to focus on major themes which will frame the design of the story-eliciting questions. Callahan et al. (2006), recommend that the number of themes should be kept to a minimum of three or less as the discursive nature of the enquiry cultivates with dialogue among the participants. Anecdote circles are similar to focus groups in that group dynamics are critical but differ because there is no rigid guide to follow. With anecdote circles, there is a lack of the focus that is found in focus groups. Rather, themes that are chosen provide a general direction for the anecdote circles and the goal is simply to collect stories about prior experiences. O'Toole et al. (2008), states anecdote circles systemically capture representational stories to recognize the theoretical understandings that individuals and groups make of events. Exercise, weight loss, and body-size attitudes were the three broad themes used to generate sharing stories. These themes were generated from a review of previous literature and relevant to the planned investigation of weightism.

**Anecdote Circle Step 2: Selecting Participants.** Selecting participants that share a common identity of experience is important for effective anecdote circles. Anecdote

circles, the development of a concourse, and Q methodology studies all require participants to share a common identity or experience. Participants for all of these steps should be selected using a diverse mix of gender, age, and experience. Brown (1980) states that participants are not to be randomly selected; rather individuals are recruited, heterogeneously, who possess knowledge or interest in the subjectivity being investigated. Using peers who identify with similar roles may help to facilitate communication of shared stories. Participants are gathered to recount experiences around one or more themes and share anecdotal dialogues in a friendly manner.

Since the current anecdote circles were intended to fuel and generate the concourse for a larger study exploring the subjectivity of first-year university exercise science students', the participants recruited were university students. Using both first year (freshman) and seniors provided a broader spectrum with the narrative story telling. The larger study sought to examine views of obesity and weight management treatments and to investigate the use of Q methodology as a needs-assessment tool within an Exercise Science program at a public Midwestern university.

**Anecdote Circle Step 3: Crafting questions using emotional words.** A vital part of anecdote circles is crafting questions to generate participants' stories. Question construction stems from the original theme (step 1) and must be wisely phrased to conjure memories to help people recall and remember their past. Callahan et al. (2006) recommends two components for question writing; imagery and emotions. Building the question with an image-building phrase to permit people to remember an event such as "Think about..., Imagine..., If..., Consider..." rather than asking a direct question. The use of emotive words helps to link past events with strong emotions and including both ends of the emotional spectrum will assist in not influencing the direction of response. An example of emotional words in the question is "When have you felt disappointed or pleasantly surprised...?". It is also noted that "when" and "where" questions are more effective in eliciting anecdotes than "how" and "why" questions, which commonly produce responses based on judgments and opinion. Having clearly developed anecdote-eliciting questions rather than simply asking people to tell stories is important. Callahan et al. (2006) suggest avoid using the term "story," as some people often believe they have to concoct an intricate level storytelling, and rather use terms such as: examples, illustrations, experiences.

**Anecdote Circle Step 4: Execution.** Prior to beginning the anecdote circle, facilitators should be trained to assist with familiarization with the details and process in conducting conversational prompts and requests, rather than directives. The overall goal is to provide a subtle form of persuasion to keep continuous dialogue, sharing and learning among participants (O'Toole et al. 2008). In this study, the researcher identified facilitators as students who actively participated in the classroom, demonstrated an ability to cultivate discussion, displayed leadership qualities, and had the use of either a SmartPhone or tablet to record the groups' discussion. Each group consisted of one student who was assigned their role as the facilitator. The facilitator in each group operated as the group leader, providing direction and prompts. A few days prior to the scheduled anecdote circles, the researcher met with the group of facilitators and explained the procedures. Facilitators were briefed on topics and more importantly, their role to engage participants to share their own experiences and prompt for concrete examples. A one-page handout was created with the themes and questions listed (Appendix A) and was provided for each facilitator to use. Groups sat in small

circles inside the classroom and shared stories related to the themes listed on the handout. Participants sharing their own experience, providing perspectives and opinions is the key to successful storytelling. The physical space also holds an imperative role with providing a warm and friendly atmosphere. Callahan et al. (2006), note that a circular arrangement of chairs, unlike a square or rectangle signals no implicit hierarchy and can help create a feeling of equality where the facilitator becomes a member of the group. The facilitator understands the process that sharing stories often requires gentle reminders to participants to be respectful listeners and the goal is not to determine one correct view but is more about understanding and exploring differences.

The unstructured facilitated anecdote circle seeks to generate stories that illustrate people's understandings and is designed to provoke stories and lived experiences rather than gather opinions (Callahan, 2004). O'Toole et al (2008) state that "as members of the group relate their own stories, this will act as a stimulus for others to generate another story that illustrates a point or takes the discussion in another direction. Although the anecdote circle may result in consensus among the group members, this is not necessary the goal of the circles. The goal remains, quite simply, the collection of stories about the participants' prior experiences concerning the issue under discussion" (p.32). The preparation and process of implementation requires designing effective themes, selecting participants, and crafting story-or anecdote-eliciting questions.

Anecdote circles were implemented as a classroom activity near the completion of the semester at which time, students had grown accustomed to interacting with peers and a trusting environment had been created. Students participated as small groups responding in narrative. Carefully crafted story questions, developed from the three broad themes were used to ignite enthusiasm for sharing stories.

The 11 anecdote circles were recorded, stories were not analyzed but the identification of macro patterns revealed students' insights. These robust anecdote circles facilitated the development of a comprehensive concourse generated through students' storytelling. The researcher listened to all recorded discussions to identify ideas consisting of both similarities and differences throughout the groups. The researcher sought to capture students' voices and opinions. The overarching concepts that emerged from both freshman and senior sections of students denoted negative connotations towards people of size. These key ideas, along with the review of literature and course evaluations provide tangible thoughts and important themes from which to build the concourse for obesity and weight management concepts.

Eight overarching themes emerged from the 11 anecdote circles (see Table 2). It is important to note that all students who participated in the anecdote circles (both freshman and senior level) shared similar stories, representing comparable values and beliefs that resulted in these eight topics. Seven topics aligned and corresponded with major themes in the literature however, one new topic surfaced during the anecdote circle storytelling that was not apparent in the course evaluations and review of literature prior to the anecdote circles. Obesity surgery was the one new topic that sparked rich dialogue among the anecdote circles. Active discussion surrounding ethical issues of using obesity surgery for weight loss brought to the surface this new and important topic and it was added to the concourse.

**Table 2. Major topics from anecdote circles**

1. <b>Attitudes</b> - negative perceptions of obese individuals
2. <b>Management</b> - poor adherence and lifestyle choices
3. <b>Barriers</b> - excuses and justifications for poor health
4. <b>Knowledge</b> - lack of education and understanding of health
5. <b>Cause</b> - blame directed on others, poor habits
6. <b>Attributes</b> - descriptive terminology and characteristics lacking apathy
7. <b>Personal</b> - items directly related to a persons feelings and emotions
8. <b>Surgical</b> - views of choosing obesity weight loss surgery

According to Brown's (1993) description of concourse theory, it is to reveal the inherent structure of a communicability surrounding any topic and from this, "new meanings arise, bright ideas are hatched and discoveries are made" (p.95) demonstrating the range of opinion from these raw materials. The use of anecdote circles provides theoretical underpinnings by employing participants shared stories to assist building the framework of the concourse and eventually the Q sample.

### **Selection of the Q sample**

Results from qualitative feedback in course evaluations combined with emergent dialogue from anecdote circles produced a robust collection of students' voices comprising the concourse. The Q sample, which was derived through this concourse, was structured under these eight major domain themes. After reviewing opinions, stories, qualitative course evaluations from the concourse, 44 carefully crafted statements were identified, representing and aligning with the eight major domains of students' views towards weight management and obesity (appendix B). Strauss & Corbin (1990) describe this process in relation to theme analysis. Fisher's balance block design, also referred to as structured design (Stephenson, 1953), involves assembling functional categories/themes to provide comprehensive and balanced appropriateness and applicability to the Q sample (Brown 1970, 1980, 1993; Stainton-Rogers 1995). The 44 statements fit into equal domains (themes) using Fisher's design principle (Brown, 1980) encompassing major content areas of the posed question, obesity-related statements fit into 8 domains (Appendix B). Using Fischer's balance block design to produce a representative sample from the concourse, the Q sample construction is systematic (Ward, 2009).

## Discussion

The focus on students' subjective perspectives related to obesity has received unduly scarce attention in previous studies. This lack of attention may be partially caused by difficulties in measuring subjectivity. Generating statements is a meticulous process. The careful and methodical review of the thoughts and attitudes people feel toward the topic helps to provide appropriate statements (Richardson et al., 2015). This current study addressed the challenge by developing an analytical approach using a robust concourse that increased the precision of exploring views. The eight domains from the anecdote circles fueled 44 comprehensive statements. The application of anecdote circles, course evaluations and relevant literature review comprised what Stephenson (1968) described as empirically selected communications, representing the conversational possibilities about the topic. Anecdote circles offer a new resource for the development of the concourse in Q studies.

For this study, anecdote circles provided a vehicle for understanding and a means for careful crafting of the concourse to design the Q sample to better explore weightism. The group dialogue within anecdote circles cultivated rich communications to generate Q statements to best differentiate students' viewpoints that existed surrounding the delicate topic of obesity. It is from these 11 circles that students elicited both their own personal stories and lived experiences that captured the eight key domain themes that may not have been found relying only on any prior literature review or course evaluations. Most importantly, these facilitated storytelling session's captured representational stories involving bariatric obesity surgery for the treatment of obesity that helped to build the robust concourse. Anecdote circles are especially helpful where there is little in the literature that delves into the subjectivity of a topic like weightism. Weightism is prevalent and educators must be mindful of learners and explore avenues to uncover weight bias. Overall, sharing, reflecting, telling stories, provides a useful tool for researchers to build a robust concourse. It is evident and has been clearly demonstrated that using anecdote circles captures representational stories to recognize the theoretical understandings of students' views of obesity stigmatization, weight management treatment and bariatric surgery and offers a novel way to develop a concourse. Implementing these steps for a comprehensive concourse using anecdote circles, provides a systematic method to craft communications providing more meaningful conclusions.

## References

- Befort, C. A., Greiner, K. A., Hall, S., Pulvers, K. M., Nollen, N. L., Charbonneau, A., . . . Ahluwalia, J. S. (2006). Weight-related perceptions among patients and physicians: How well do physicians judge patients' motivation to lose weight? *Journal of General Internal Medicine*, *21*(10), 1086-1090. Retrieved from <http://ezproxy.uakron.edu:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=mnh&AN=16970557&site=ehost-live>
- Bocquier, A., Verger, P., Basdevant, A., Andreotti, G., Baretge, J., Villani, P., & Paraponaris, A. (2005). Overweight and obesity: Knowledge, attitudes, and practices of general practitioners in France. *Obesity Research*, *13*(4), 787-795. doi:10.1038/oby.2005.89
- Brown, S.R. (1970). On the use of variance designs in Q methodology. *Psychological Record*, *20*, 179-189. doi: 10.1007/BF03393928



- Brown, S. R. (1980). *Political subjectivity: Applications of Q methodology in political science*. New Have, CT: Yale University Press.
- Brown, S. R. (1993). A Primer on Q Methodology. *Operant Subjectivity*, 16(3/4), 91–138. doi:10.15133/j.os.1993.002
- Callahan, S. (2004). Want to manage tacit knowledge? *Anecdote Pty Ltd*.
- Callahan, S., Rixon, A. & Schenk, M. (2006). The ultimate guide to anecdote circles. Retrieved from [http://www.wcasa.org/file\\_open.php?id=1097](http://www.wcasa.org/file_open.php?id=1097)
- Clandinin, J. D., & Rosiek, J. (2007). Mapping a landscape of narrative inquiry. In J. D. Clandinin (Ed.), *Handbook of narrative inquiry: Mapping a methodology* (pp. 35). Thousand Oaks, CA: Sage.
- deChambeau, A. L., & Ramlo, S. E. (2017). STEM high school teachers' views of implementing PBL: An investigation using anecdote circles. *The Interdisciplinary Journal of Problem-Based Learning*, 11(1).
- McKeown, B., & Thomas, D. (1988). In Lewis-Beck M. (Ed.), *Q methodology series: Quantitative applications in the social sciences*. University of Iowa: Sage University Paper series on Quantitative Applications in the Social Sciences.
- Newman, I. & Ramlo, S. (2010). Using Q methodology and Q factor analysis in mixed method research. In A. Tashakkori, & C. Teddlie (Ed.), *Handbook of mixed methods in social and behavioral research*. (pp. 505-530). Thousand Oaks, CA: SAGE Publication.
- Ogden, C., L., Carroll, M., D., Kit, B., K., & Flegal, K., M. (2014). Prevalence of childhood and adult obesity in the united states, 2011-2012. *JAMA: Journal of the American Medical Association*, 311(8), 806-814. doi:10.1001/jama.2014.732
- O'Toole, P., Talbot, S., & Fidock, J. (2008). Anecdotally speaking: Using stories to generate organisational change. *Qualitative Research Journal*, 8(2), 28–42.
- Puhl, R., & Brownell, K. D. (2001). Bias, discrimination, and obesity. *Obesity Research*, 9(12), 788-805. Retrieved from <http://ezproxy.uakron.edu:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=mnh&AN=11743063&site=ehost-live>
- Puhl, R. M., & Heuer, C. A. (2009). The stigma of obesity: A review and update. *Obesity*, 17(5), 941-964. doi:10.1038/oby.2008.636
- Puhl, R. M., & Heuer, C. A. (2010). Obesity stigma: Important considerations for public health. *American Journal of Public Health*, 100(6), 1019-1028. doi:10.2105/AJPH.2009.159491
- Puhl, R. M., Luedicke, J., & Grilo, C. M. (2014). Obesity bias in training: Attitudes, beliefs, and observations among advanced trainees in professional health disciplines. *Obesity (Silver Spring, Md.)*, 22(4), 1008-1015. doi:10.1002/oby.20637
- Ramlo, S. (2008). Determining the various perspectives and consensus within A classroom using Q methodology. *AIP Conference Proceedings*, 1064(1), 179-182. doi:10.1063/1.3021248
- Ramlo, S. (2015a). Mixed method lessons learned from 80 years of Q methodology. *Journal of Mixed Methods Research*, doi:10.1177/1558689815610998
- Richardson, L. A., Fister, C. L., & Ramlo, S. E. (2015). Effect of an exercise and weight control curriculum: Views of obesity among exercise science students. *Advances in Physiology Education*, 39(2), 43-48. Retrieved from <http://ezproxy.uakron.edu:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1064195&site=ehost-live;http://dx.doi.org/10.1152/advan.00154.2014>
- Stainton-Rogers, R. (1995). Q methodology. In J. Smith, R. Harre & L. Langenhove (Eds.), *Rethinking methods in psychology* (pp. 178-192). Thousand Oaks, CA: Sage.

- Stenner, P. (2008-2009). Introduction: Between method and olgy. *Operant Subjectivity*, 32, 1-5.
- Stephenson, W. (1953). *The study of behavior: Q-technique and its methodology*. Chicago, IL: University of Chicago Press.
- Stephenson, W. (1968). Consciousness out- subjectivity in. *The Psychological Record*, 18, 499-501.
- Strauss, A. L., & Corbin, J. M. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage.
- Teal, C., Gill, A., Green, A., & Grandall, S. (2012). Helping medical learners recognise and manage unconscious bias toward certain patient groups. *Med.Educ.(Oxf, Print)*, 46(1), 80-88. Retrieved from <http://ezproxy.uakron.edu:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=fcs&AN=25304994&site=ehost-live>
- Thuan, J., & Avignon, A. (2005). Obesity management: Attitudes and practices of French general practitioners in a region of france. *International Journal of Obesity*, 29(9), 1100-1106. doi:10.1038/sj.ijo.0803016
- Ward, W. (2009). Q and you: The application of Q methodology in recreation research. *Proceedings of the 2009 Northeastern Recreation Research Symposium*, , 75-80.
- Watts, S., & Stenner, P. (2012). *Doing Q methodological research: Theory, method and interpretation*. London: SAGE Publications.
- Wolf, C. (2010). Physician assistant students' attitudes about obesity and obese individuals. *The Journal of Physician Assistant Education: The Official Journal of the Physician Assistant Education Association*, 21(4), 37-40. Retrieved from <http://ezproxy.uakron.edu:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=mnh&AN=21366114&site=ehost-live>

## Appendix A

### ANECDOTE CIRCLE HANDOUT Anecdote circle prompts "Not opinions rather looking for examples"

COURSES: Cardiac Rehab Summer/Intro Exercise Science

**Group facilitator/Recorder Name:** \_\_\_\_\_

**Names of other students in the group:** \_\_\_\_\_

The role of facilitator is a very important role in anecdote circles. Goal is for you to pose questions that will generate storytelling. All members of the group share stories not tell stories. Less concerned with opinions and judgments.

Facilitator should intervene when hearing opinions and ask the person for an example or experience. Could you give me an example of that? What experience are you drawing on? Tell us more.

**Please audio record the entire session.** Recordings of group discussion will use either SmartPhone or tablet. At the end of the session, recording will be emailed to

instructor. All group members must share stories for each theme that is posed. Ideally, dialogue between group members is encouraged and should provide additional story sharing.

Use the prompts listed (bullets) once all members have shared initial story, prompts will open up the conversation for richer descriptions.

The final recorded files must be emailed to: [laura2@uakron.edu](mailto:laura2@uakron.edu)

## HANDOUT FOR GROUP FACILITATOR

### **Warm-up: introductions** (time limit 5 minutes)

*Share one memory of college that makes you laugh, cry or embarrassed.*

- Recall who you were with.
- Share how others responded to your situation.

### **1. Theme: Exercise** (minimum time for storytelling is 15 minutes)

*Think back to a time when you have discussed the importance of exercise.*

- Describe who you were talking with and their response to being active.
- Describe if their response was positive or negative about exercise.
- Discuss how the media portrays exercise.

### **2. Theme: Weight lost** (minimum time for storytelling is 15 minutes)

*Think about a recent interaction you had with someone who wanted to lose weight.*

- Describe their attitude towards weight loss.
- Describe their mechanism/or way they choose to lose weight

### **3. Theme: Body-size attitudes** (minimum time for storytelling is 15 minutes)

*Think about the term 'ideal body' and describe the image you have.*

- Explain the image you have of obesity.
- Explain how you imagine the personality, temperament, education, occupation... of someone who is overweight.
- Describe how an obese person changes their body size

## Appendix B: Eight Major Domains of Student Views Towards Weight Management and Obesity

No.	Statement	Category
1	It is easy for the general public to be judgmental towards obese individuals.	Attitudes
2	I feel obesity is a person's choice.	Attitudes
3	Attitudes towards obesity are formed through media.	Attitudes
4	I feel uncomfortable learning about something that does not apply to me personally.	Attitudes
5	I believe it is important to accept people of all sizes.	Attitudes
6	Everyone has control over their weight.	Attitudes
7	I feel that by decreasing food consumption of calories and portions that weight loss will occur.	Management
8	Surgical weight loss surgery is the best method for weight loss.	Management
9	Increasing energy expenditure through movement and exercise is important to loss weight.	Management
10	Decreasing food consumption (energy intake) is important to minimize weight gain.	Management
11	A minimum of 300 minutes or more a week of physical activity is important for weight maintenance.	Management
12	Obese clients will probably dropout of weight loss programs.	Barriers
13	Behavior change is very difficult with humans.	Barriers
14	Obese people ignore significant medical problems caused by obesity.	Barriers
15	Successful weight loss requires social support (family or peers).	Barriers
16	Obese people have higher rates of low self-esteem and therefore do not adhere to regular exercise.	Barriers
17	Obese people are commonly from lower socioeconomic levels and therefore cannot afford memberships to workout facilities.	Barriers
18	Daily physical activity is important for everyone regardless of age or health status.	Knowledge
19	I feel obesity is a preventable condition.	Knowledge
20	I feel that obesity is higher among low socioeconomic class.	Knowledge

No.	Statement	Category
21	I feel that obesity is higher among people who receive education less than a college.	Knowledge
22	I understand that obesity is a complex multifactorial disease .	Knowledge
23	Lack of will power is a primary cause of weight gain.	Cause
24	The high cost of healthy food is a primary cause of obesity.	Cause
25	I feel that media's advertising of fast food is a main cause for the national statistics on the high rates of obesity.	Cause
26	Genetics is the cause for obesity.	Cause
27	I feel that obese individuals are lazy.	Attributes
28	I feel that individuals who are obese lack information on the importance of daily physical activity.	Attributes
29	Weight gain is rarely caused by lack of willpower or dedication.	Attributes
30	I feel that obese individuals are strong willed and determined people.	Attributes
31	I feel that obesity is often used as an excuse to not exercise.	Attributes
32	Physical appearance is very important to me.	Personal
33	I think I will be working with obese individuals in the future.	Personal
34	I am interested in learning about the causes and treatments of obesity.	Personal
35	I am worried that this class will not provide any additional information for me, that I do not already know.	Personal
36	I feel competent in my skills to provide weight loss assistance to those who are overweight or obese.	Personal
37	I have difficulty feeling empathy (compassions) towards individuals who are obese.	Personal
38	Exercising and eating healthy is very important personally to me.	Personal
39	I feel uncomfortable around obese people.	Personal

<b>No.</b>	<b>Statement</b>	<b>Category</b>
40	Bariatric surgery leads to long term weight loss and maintenance.	Surgical
41	I believe surgery is a healthy way to lose weight.	Surgical
42	I feel obesity surgery is an easy way out.	Surgical
43	I feel that diet and exercise is the correct way to lose weight.	Surgical
44	Obesity surgery should only be used as a last resort.	Surgical