Can Stored Data Answer All Questions:  
A Study of Questions on Eating Disorders  

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ABSTRACT  
A common statement is that 80% of the questions can be answered by a small set of perhaps 20% of all answers. To investigate this statement, a set of 630 questions, which were sent to an on-line service, were analyzed. All the questions were about eating disorders and obesity. The conclusion is that the statement, which was investigated, was not true. There was a large variation of different questions, and even though some questions did appear more than once, it was much less than 80% of all questions. The paper offers insight into different types of questions posted on-line in the area of eating disorders. From the study follows that to provide satisfactory answers to a large part of the questions, it is necessary to have humans answering the questions.  

KEYWORDS  
Anorexia Nervosa, Eating Disorders, Obesity, Question Answering, Stored Data, Swedish Social Insurance  

INTRODUCTION  
One often hears statements such as that eighty percent of the questions can be answered by twenty percent of the answers, or other similar statements, indicating that a small set of answers are enough to answer most of the questions in a particular topical area. The primary object of this chapter is to investigate the truth of this statement, by studying if 630 actual questions in the eating disorders area can be answered by a small set of standard answers to common questions.  
Suppose you are writing a book about eating disorders, or planning a web site about eating disorders, or want to review such a book or web site. Your goal may be to give good answers to all kinds of questions, which your readers will have about eating disorders. It will then be important to know which kinds of questions people want answers to in regards to eating disorders. A secondary object of this chapter is to provide input for such planning work.  

SOURCE DATA  
To get an overview of which are the most common questions, which people ask about eating disorders, this study is based on an analysis of 630 questions, which were sent to an on-line question area, where people with different psychological problems could send their questions and get free answers by an
expert psychologist. 630 questions will of course not cover every question anyone may ask about eating disorders, but it will probably give a good basis for a main organisation of such a book or web site.

Eating disorders are a common set of psychiatric disorders, where a person eats too little (anorexia nervosa), too much (binge eating disorder) or too much combined with compensatory activities like purging and fasting (bulimia nervosa). In the worst cases, these disorders can lead to death, but more commonly causes unhappiness and unhealthy eating. There are no reliable statistics on the incidence of eating disorders, because most people suffer in secrecy and do not come into contact with health care providers. Some studies indicate that between 10 and 35% of young women suffer from bulimia nervosa, severe anorexia nervosa was in another study found for about 1% of teenage girls. 70% of people suffering from eating disorders are women [Beat, 2007]. Web4Health is a web site originally developed with support from the European Community. It contains about one thousand informational texts about different psychological problems. The site is meant to answer questions about psychology, psychiatry and psychological questions. Most of the texts are available in German, English and French, some of them also in Greek, Italian, Finnish and Polish. The Web site was first opened in 2004. It has about 600 000 visitors a month.

On the web site is an area where people can send in questions and get personally tailored answers by a human expert. This service is presently available in German and Swedish, but was until April 2008 also available in English. This study is based on a collection of 12622 such questions in Swedish and English. German questions were not used for this study. Of these 12622 questions, 630 or 5% were found to relate to the area of eating disorders and therefore selected. This selection of 630 questions is the basis for this chapter.

These 630 questions were first roughly categorized into four categories: Anorexia nervosa, bulimia nervosa, binge eating/overweight and other/unspecified eating disorder. However, many questions did not fit very well in these four category groups, and they were then assigned to the group which was closest to their problem. According to this rough classification, the questions had the distribution shown in Table 1.

This rough classification was done in two stages. In the first stage, questions containing any of a number of words or word beginnings which are typical of eating disorders were detected. In the second stage, a manual classification was done of each entry found in the first stage. The list of typical eating disorders word contained 32 words like words containing the strings diet, bulimia, thin (but think as excluded), feed, gain, drink, pounds, etc. This automatic detection was only done for the English questions, for the Swedish questions every single question was analyzed manually. It may mean that a few English eating-disorder questions were missed in this selection process.

The division into the two categories anorexia nervosa and bulimia nervosa was made as specified in DSM-IV [DSM-IV], which means that people with a bulimic behaviour but with a low BMI were put

<table>
<thead>
<tr>
<th>Category</th>
<th>Numbers</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>English</td>
<td>Swedish</td>
</tr>
<tr>
<td>Anorexia nervosa</td>
<td>41</td>
<td>93</td>
</tr>
<tr>
<td>Bulimia nervosa</td>
<td>67</td>
<td>52</td>
</tr>
<tr>
<td>Binge eating, overweight or obese</td>
<td>132</td>
<td>141</td>
</tr>
<tr>
<td>Other or unspecified</td>
<td>39</td>
<td>64</td>
</tr>
<tr>
<td>Total</td>
<td>279</td>
<td>350</td>
</tr>
</tbody>
</table>

Table 1. Gross distribution of eating disorders and problems
Nonparametric Decision Support Systems in Medical Diagnosis: Modeling Pulmonary Embolism
www.igi-global.com/article/nonparametric-decision-support-systems-medical/2184?camid=4v1a