

"AN EXAMINATION OF BEING UNHAPPY AND DEPRESSED WITH EMPHASIS ON THE INFLUENCE OF GENDER AND THE LEVEL OF URBANIZATION"

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❖ **Abstract/ Overview:**

This report is designed to present a statistical examination of the association between gender and the level of urbanization as two independent variables (IV) with the feeling of unhappiness and depression as the only dependent variable (DV). This is a single item that is part of a border scale - the General Health Questionnaire (GHQ12). For this purpose, data was used from the Health Survey for England 2010 using SPSS statistical software. Moreover, in this research, the questionnaire was used to gather data and the secondary data was used in this report, which is taken from a larger piece of survey research carried out by the Department of Health in 2010 (UK archive survey number 6986). The Health Survey for England undertook a questionnaire to collect data and the sample of study was (10,494) people, which included (5,298) women with (5,196) men. Also, the sample was selected randomly which provided an equally available chance.

Bivariate and multivariate analysis has been used to confirm the different levels of urbanization as well as the gender of those people who feel unhappy and depressed in England. The bivariate determined what has been pointed out in the literature. One clear bivariate finding is that the statistical results shows that people who are living in urban areas are more likely to feel unhappy and depressed than people who are living in villages or towns (see Appendix 6). Additionally, statistical associations among variables have been examined via Chi-square, with Cramer's V examining the stability of the relationship, and the relationship was determined statistically. The mathematically significant bivariate relationship between gender and feeling unhappy and depressed was discovered to be (Chi-square; $V=0.034$). Furthermore, the statistically important bivariate relationship between the level of urbanisation and being sad and depressed was found to be (Chi-square; $V=0.034$). In other words, the association between gender, degree of urbanization and unhappy and depressed feelings was strong according to statistics in England. The report shows the multivariate findings such as the fact that both men and women have

shown signs of being depressed and unhappy but in different amounts. Women are more likely to be depressed than men, and both men and women are more depressed in urban areas than those who are living in villages or the countryside. In other words, elaboration shows that the gender-anxiety association is located in the urban population and is not present amongst town, fringe or village populations (see Appendix 6).

The examination of the link between gender and feeling unhappy and depressed shows that females are much more inclined to feel unhappy and depressed than males (3.1% more females feel unhappy and depressed compared to 2.5% for males (see Appendix 4). This paper will review the influence of gender and perceptions of the degree of urbanisation on those who become depressed and unhappy in England.

❖ **The research problem and questions:**

From the perspective of modern social science, in order to select the reasons behind any phenomenon, the researcher should focus on more than one perspective or reason to highlight what it is that lies behind any social phenomenon (Morris, 2006). Modern life is complex and, it can bring several challenges. In other words, although technology makes life more convenient, people still face several social-psychological problems. Feeling unhappy and depressed can be seen as characteristics of modern life. The states of unhappiness and depression among people are common health and social- psychological issues and these kinds of feelings have grown widely in the world (BBC, 2010). Research shows that one in five individuals might be depressed and sad at some point in their lives. Several individuals become unhappy and sad when something stressful takes place in their daily lives (Cvetkovich, 2012). Additionally, in the current report, links between being male or female, the degree of urbanization and states of feeling unhappy and depressed are highlighted to ascertain the influence of those categories on each other.

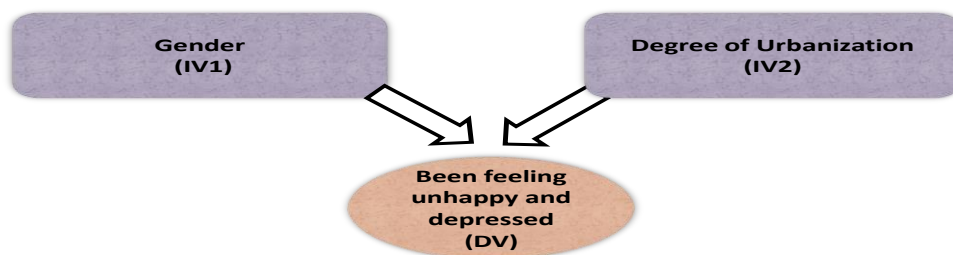
There is a known relationship between gender and being unhappy according to previous research. Meagher and Murray (1997) pointed out that “sex discrimination is not only a function of society; it is a function of disease”. Both males and females have different bodily and psychological reactions to stressful situations according to research (American Psychological Association, 2013). Moreover, studies have been examined when girls become depressed in a stressful environment; the studies have shown that they have a tendency to stay in a quiet place, while boys in this kind of circumstances are more expected to take action (Gordon and Heather, 2010). Additionally, studies state that there is an association between people who live in urban and rural area and those who feel unhappy and depressed. Studies point out those people who live in a big city might face a higher risk of developing depression than someone who lives in rural area. Researchers also reported that living in urban areas can bring much more stress than

living in rural areas due to the lack of social support and social isolation being two main characteristics of urbanization. Therefore, those social circumstances can contribute among people to feeling unhappy and depressed (Nierenberg, 2013).

Therefore, this research is designed to examine the relationship between two independent variables (IVs), namely gender and the degree of urbanization with one dependent variable (DV) feeling unhappy and depressed. This research aims to discover answers to the following questions:

1. What are the associations between being unhappy and depressed with gender and the place where a person lives?
2. Which category, male or female, is much more likely to be depressed?
3. Is there a link between gender and someone being unhappy and depressed according to their degree of urbanisation?
4. Is there a link between people's degree of urbanization and being sad and depressed according to their gender?

The research problem is illustrated in Figure (1).



❖ **Hypotheses**

Generally, several reasons can be associated with feeling sad and unhappy. Being unhappy and depressed might be unusual social-psychological problem. Therefore the focus will be on answering the following questions:

1. There is a relationship between gender and being unhappy and depressed.

2. There is a relationship between place of residence and being unhappy and depressed.
3. There is a link between gender and being sad and depressed consistent for different levels of urbanization.
4. There is a link between urbanisation and being sad and depressed consistent for males and females.

❖ **The Aims of the Research:**

The research is designed so as to understand and identify the association between gender and the level of urbanization with the states of being unhappy and depressed, and analyses data gathering so as to discover the relationship between them.

❖ **Methodology:**

The quantitative methods were used to examine the aspects underlying the states of being unhappy and depressed (DV). It is important to note that this is a single item which is part of a wider issue - the General Health Questionnaire (GHQ12) associated it with gender and the level of urbanization (IVs) in England in 2010. **Babbie (2010)** stated that "quantitative methods emphasize ... objective measurements and numerical analysis of data collected through polls, questionnaires or surveys. Quantitative research focuses on gathering numerical data and generalizing it across groups of people". Moreover, the survey research method is employed as a systematic way to collect data so as to describe, compare, or analyse knowledge, attitudes and behaviours (**Connelly, 2009**).

In this research, the questionnaire aimed to gather data, and the secondary data was used in this report which is taken from the bigger survey research carried out by the Department of Health in 2010 (UK archive survey number 6986). The data already compiled by another piece of research was used to achieve some aims for which the primary research would not be intended (**Singleton, 1988**). The Health Survey for England was undertaken as a questionnaire to gather data and the sample of research was (10,494) people, which included (5,298) females with (5,196) males. Additionally, the sample was chosen randomly which provided an equally available opportunity for (10,494) people.

❖ **The measures of the study:**

In this research, the measuring instrument which was developed with the help of the tutor took the form of a literature review. The measures were designed and formulated according to the aims of the research. Generally, the measures were divided into categories which included independent variables (IVs) and a dependent variable (DV). The independent variables involved

gender and the degree of urbanization due to differences among the members of the sample in the research, while the dependent variable was formulated according to the goals of the study.

In this report, gender and the degree of urbanization are the only two independent variables (IVs) with the (state of feeling unhappy and depressed) being the only dependent variable (DV). The latter variable is used as secondary data from the primary research that was carried out by the Department of Health for England in 2010. This is a single item that is part of a wider report - the General Health Questionnaire (GHQ12). The 12-item GHQ has been the most extensively used questionnaire in society and primary care situations (Ouibette et al., 2008). According to one source, "the GHQ 12 was designed to measure minor psychiatric morbidity and has been well validated in this aspect, it has been reported to be one of the best instruments to measure psychological distress of its kind" (Beverley, 2008, p. 42). The GHQ 12 is a measure of present mental health. It emphasises two main parts, the inability to perform usual roles and the appearance of new and distressing experiences. In the beginning, it was settled as a (60-item) instrument, with a range of edited types of the questionnaire containing the GHQ-30, GHQ-28, GHQ-20 and GHQ 12 being currently obtainable. The questionnaire inquires as to whether the person answering has experienced a specific indication or performance in recent times. Each item is valued on a four point scale. The 12 item version has been exposed to be as operative as the 30 item version (Smith et al., 2010).

Questions which were asked include: have you recently been able to concentrate on whatever you are doing? Lost much sleep over worry? Felt that you are playing a useful part in things? Felt capable of making decisions about things felt constantly under strain? Felt you couldn't overcome your difficulties? Been able to enjoy your normal day to day activities? Been able to face up to your problems? Been feeling unhappy and depressed? Been losing confidence in yourself? Been thinking of yourself as a worthless person? Been feeling reasonably happy in all things? (Public Health England, 2013).

There are several reasons as to why in this piece of work the researcher has only used one single item of GHQ-12; firstly, logically it might be quite multi-faceted to use all GHQ 12 items in this short report (3,000) words. Secondly, the item that has chosen is the important one according to several scientific studies; for instance, a large number of stress studies have highlighted depression and anxiety as dependent variables (DVs) (Jones and Bright, 2001, p.30). The Great British Community (2013) states that one in four people have experienced a mental health problem or a well-being problem, such as being unhappy and depressed in the UK annually. Furthermore, currently being unhappy and depressed is an essential part of an individual's experience. This is particularly the case in relation to challenging or trying periods. Unhappiness, nervousness and hopelessness are indications of depression; depression impacts on the way in

which an individual eats, sleeps, feels, thinks, has feelings of death or suicide, has a loss of interest in things that were once pleasurable, suffers from concentration problems, forgetfulness, changes in weight and appetite, daytime sleepiness, loss of energy and insomnia (National Sleep Foundation, 2013). Studies stated that men and women have different reactions mentally and physically when they face challenges in their daily life and they have different strategies for dealing with stressful situations (American Psychological Association, 2013). Moreover, some researchers believe that “women were more likely than men to experience on going stress and feel that their lives were out of their control”. Also, it is mentioned that household tasks typically handled by females involve looking after children, taking care of older relatives and other social responsibilities, so those kinds of tasks can bring much more pressure (Harvard Health Publications, 2013).

As the above statements reveal in terms of the relationship between gender and the degree of being sad and depressed, there are several studies that have mentioned the relationship between the degree of urbanization and stress as one of the sources of sadness and depression in society. Srivastava (2009, p.75) stated that urbanization impacts on psychological health through the impact of improved stresses and aspects such as congested and contaminated atmosphere, high levels of assault, and decreased social support. Additionally, Trivedi (2002) believes that urbanization is one of the social factors which has contributed and impacted on individuals becoming mentally illness persons. David (2011) has mentioned that research has confirmed that life in the urban areas is more stressful than life in rural areas, and studies have presented that the parts of the brain which deal with pressure and sensation are impacted on by living among the crowds. Also, he stated that those who are born and raised in urban areas are more likely to suffer from anxiety, depression and schizophrenia than those brought up in the countryside (ibid).

❖ **Data preparation and presentation:**

In this report, the researcher is going to examine one dependent variable (DV) from the Health Survey in 2010 for England with two independent variables (IVs) in the same survey. The researcher selected gender and the degree of urbanization with “ feeling unhappy and depressed” and the researcher will explain and justify any manipulation in the data technique applied to the variables. Furthermore, the examination of the association between gender, the degree of urbanization and being unhappy and depressed will be presented in the research. After obtaining the data from the Health Survey 2010 for England, the researcher worked to transfer the necessary data to a computer via the (SPSS V.19) program. It helped the researcher to undertake the data gathering into statistic language according to number and percentage. Furthermore, it was convenient to use the computer to create the pie chart, line graph, tables and so on (Gray and

Kinnear, 2012). Additionally, the bivariate examinations included a mixture of tabularizing the dependent variable, such as “feeling unhappy and depressed” with both independent variables "gender, degree of urbanization.” The multivariate examinations involved a cross tabulating of one of the two independent variables with the dependent variable at the same time as working on the other independent variable. This statistical process made it clear to comprehend the association between gender and being unhappy and depressed and, at the same time, discovering the association between the degree of urbanization and sadness and depression.

Bivariate analysis emphasized the association between gender and feeling unhappy and depressed. The examination of gender with been unhappy and depressed showed that females were much more likely to feel unhappy and depressed than males (females were 3.1% much more likely to feel unhappy and depressed compared to 2.5% for males (see Appendix 4). Another essential point is that, in general, (42%) of men responded "not at all feeling unhappy and depressed" compared to approximately (40%) of women (see Appendix 4).

One more curious finding is that around (3.0 %) of men were much more likely to feel unhappy than usual in urban areas compared to (1.5 %) in villages, hamlets and isolated dwellings, while (3.2 %) of females were much more likely to feel unhappy in urban areas compared to (2.4 %) in villages, hamlets and isolated dwellings (see Appendix 6).

❖ **Univariate tables:**

Table (1) GHQ: Been feeling unhappy and depressed

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
Not at all	3265	31.1	40.9	40.9
No more than usual	3442	32.8	43.1	84.0
Rather more than usual	1053	10.0	13.2	97.2
Much more than usual	223	2.1	2.8	100.0
Total	7983	76.1	100.0	
Missing				
Don't know	60	.6		
Not applicable	2451	23.4		
Total	2511	23.9		
Total	10494	100.0		

The above table is the DV univariate table. Feeling unhappy and depressed, which is the only dependent variable in this report, has been categorized into four categories as follows: - 1. Not at

all; 2. No more than usual; 3. Rather more than usual; and 4. Much more than usual. Additionally, the degree of urbanization as the second independent variable after gender includes three categories such as: - 1. Urban; 2. Town and fringe, 3. Village, hamlet and isolated dwellings. According to statistical answering of the sample of the research in terms of being unhappy and depressed the majority of them (33%) commented that they are feeling unhappy and depressed no more than usual while only approximately (12%) stated that they are feeling unhappy and depressed.

Table (2) Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	5196	49.5	49.5	49.5
Valid Female	5298	50.5	50.5	100.0
Total	10494	100.0	100.0	

The example was concluded with approximately just over half of the number sampled as males (50.5%), and just under half as females (49.5%).

Table (3) Degree of urbanization

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Urban	8578	81.7	81.7	81.7
Valid Town & fringe	910	8.7	8.7	90.4
Valid Village, hamlet and isolated dwellings	1006	9.6	9.6	100.0
Total	10494	100.0	100.0	

The above table shows the level of urbanization of the samples, with the majority of respondents living in urban areas (81.7%). According to this figure, (9.6%) of respondents came from villages, hamlets and isolated dwellings and the minority of the sample (8.7%) lived in towns and fringe areas.

❖ **Bivariate Analysis: (Assessing the strength of relations with Cramer's V)**

Sex * GHQ: Been feeling unhappy and depressed Crosstabulation

% Within Sex

		GHQ: Been feeling unhappy and depressed				Total
		Not at all	No more than usual	Rather more than usual	Much more than usual	
Sex	Male	42.0%	43.2%	12.3%	2.5%	100.0%
	Female	39.9%	43.0%	14.1%	3.1%	100.0%
Total		40.9%	43.1%	13.2%	2.8%	100.0%

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.034	.027
	Cramer's V	.034	.027
N of Valid Cases		7984	

It can be seen from the above statistical data that both males and females faced depression rather more than usual but approximately (12%) for males compared to around (14%) for females. Another significant point is that about (41%) of the entire sample reported that it had not at all been feeling unhappy or depressed. One more point is that approximately (43%) of both males and females were not likely to become sad and depressed. Furthermore, the mathematically important bivariate relationship between gender and psychological problems and psychological wellness was discovered to be (Chi-square Phi=0, 034; V=0.034). Chi-square is a statistical test normally used to associate observed data with data which we would expect to get according to a specific hypothesis. The Cramer's V is used to examine the strength of association between one nominal variable with either another nominal variable, or with an ordinal variable. Examining the effect size or strength of the link between gender and feeling unhappy and depressed formed gave a figure of (0.034). However, testing between the degree of urbanization and feeling unhappy and depressed also presented the same figure value (0.034) in the appendices. This means that the strength of association between gender and feeling unhappy and depressed is statistically the same as the association between the degree of urbanization and feeling unhappy and depressed. Both have a very weak impact on reported depression rates.

❖ **Relationship between degree of urbanisation and becoming sad and depressed:**

(D) Degree of urbanization * GHQ: Been feeling unhappy and depressed cross tabulation

% within Degree of urbanization

		GHQ: Been feeling unhappy and depressed				Total
		Not at all	No more than usual	Rather more than usual	Much more than usual	
Degree of urbanization	Urban	40.8%	42.6%	13.6%	3.0%	100.0%
	Town & fringe	45.3%	42.5%	10.2%	2.1%	100.0%
	Village, hamlet and isolated dwellings	38.1%	47.4%	12.4%	2.1%	100.0%
Total		40.9%	43.1%	13.2%	2.8%	100.0%

According to the data in the above table, approximately (41%) of the entire sample did not feel unhappy or depressed at all. Another essential point is that people from urban areas are much more likely to become sad and depressed than people who are living in towns. It can be seen that people who are living in urban areas are much more likely to become sad and depressed than people who are living in towns (2.1%) compared to (3.0%) in urban areas. One more important point that we can see from the table is that the responses of people who are living in cities and towns have a similar rate of likelihood to becoming unhappy and depressed at around (43%) for each of the urban and town categories. This is despite the fact that the statistically significant bivariate relationship between the level of urbanisation and being sad and depressed was shown to be (Chi-square Phi=0, 048; V=0.034).

❖ **Multivariate Analysis:**

Multivariate analysis includes more than one dependent variable (also known as the outcome or phenomenon of interest), more than one independent variable or both (Hall, 2013). Multivariate study involves the analysis of three variables at the same time. This involves examining the two independent variables, gender and degree of urbanization, with the dependent variable (feeling unhappy and depressed) all together. Multivariate examination looks narrowly at the bivariate results. In this example, one of the independent variables might appear as an elaborating variable to describe the relationships known by the bivariate elaboration in more detail.

❖ **Relationship between feeling unhappy and depressed in England, gender and the degree of urbanization:**

Sex * GHQ: Been feeling unhappy and depressed * (D) Degree of urbanization Cross tabulation

% within Sex

(D) Degree of urbanization			GHQ: Been feeling unhappy and depressed				Total
			Not at all	No more than usual	Rather more than usual	Much more than usual	
Urban	Sex	Male	41.8%	43.1%	12.4%	2.7%	100.0%
		Female	39.8%	42.2%	14.8%	3.2%	100.0%
	Total		40.8%	42.7%	13.6%	3.0%	100.0%
Town & fringe	Sex	Male	47.3%	41.7%	8.9%	2.1%	100.0%
		Female	43.4%	42.9%	11.3%	2.4%	100.0%
	Total		45.3%	42.3%	10.2%	2.2%	100.0%
Village, hamlet and isolated dwellings	Sex	Male	38.8%	45.2%	14.5%	1.5%	100.0%
		Female	37.5%	49.6%	10.5%	2.4%	100.0%
	Total		38.1%	47.4%	12.5%	2.0%	100.0%
Total	Sex	Male	42.0%	43.2%	12.3%	2.5%	100.0%
		Female	39.9%	43.0%	14.1%	3.1%	100.0%
	Total		40.9%	43.1%	13.2%	2.8%	100.0%

The association between feeling unhappy and depressed is not complex according to the statistical results (see the above table). The analysis clearly shows that people who are living in urban areas are more likely to feel unhappy and depressed than people who are living in villages or towns. The table shows that the figure of respondents feeling unhappy and depressed is much more than usual and varied between (3.0%) in urban areas, (2.2%) in towns and fringe areas, then (2.0%) in villages, hamlets and isolated dwellings. Also, it illustrates that females are more likely to feel unhappy and depressed than males with (2.7%) reported for males compared to (3.2%) for females in urban areas.

❖ Degree of urbanisation compared to feeling unhappy and depressed (control for gender)

Degree of urbanisation * GHQ: Been feeling unhappy and depressed * Sex Crosstabulation

% within Degree of urbanisation

Sex		Degree of urbanisation	GHQ: Been feeling unhappy and depressed				Total
			Not at all	No more than usual	Rather more than usual	Much more than usual	
Male	Degree of urbanisation	Urban	41.8%	43.1%	12.4%	2.7%	100.0%
		Town & fringe	47.3%	41.7%	8.9%	2.1%	100.0%
		Village, hamlet and isolated dwellings	38.8%	45.2%	14.5%	1.5%	100.0%

Female	Total		42.0%	43.2%	12.3%	2.5%	100.0%
	Degree of urbanisation	Urban	39.8%	42.2%	14.8%	3.2%	100.0%
		Town & fringe	43.4%	42.9%	11.3%	2.4%	100.0%
		Village, hamlet and isolated dwellings	37.5%	49.6%	10.5%	2.4%	100.0%
		Total	39.9%	43.0%	14.1%	3.1%	100.0%
Total	Degree of urbanisation	Urban	40.8%	42.7%	13.6%	3.0%	100.0%
		Town & fringe	45.3%	42.3%	10.2%	2.2%	100.0%
		Village, hamlet and isolated dwellings	38.1%	47.4%	12.5%	2.0%	100.0%
		Total	40.9%	43.1%	13.2%	2.8%	100.0%

The above table shows that the association between gender and feeling unhappy and depressed is located with the urban population and is not present in those who come from the town and fringe areas or villages, etc. . Furthermore, it shows that women are more likely to be depressed (18%) than men (15%) in urban areas, and that both men and women are depressed more in urban areas at approximately (17%) than men and women who are living in town and fringe areas (totalling around 12%) or in villages etc. (totalling around 14%).

❖ **Conclusion:**

This study is an examination of the associations with a reported health survey in England. This research places emphasis on the impact of the relationship between gender and the degree of urbanization as two independent variables (IV) with feeling unhappy and depressed as the only dependent variable (DV), which is part of a broader scale - the General Health Questionnaire (GHQ12). The sample of the survey was (10,494) people, which includes (5,298) females and (5,196) males. Additionally, the sample was chosen randomly which provided an equal opportunity for all individuals in England. The questionnaire was used widely to gather data. The report found several essential associations between the variables and the research hypotheses were then confirmed.

Chi-square analysis and assessment of Cramer’s V concepts were confirmed with each of the independent variables (gender and degree of urbanisation), along with feeling unhappy and depressed (the dependent variable), to select the strength of those patterns. The findings discovered statistically significant associations for both gender (Chi-square $p < 0.034$; $V = 0.034$) and the level of urbanisation (Chi-square $p < 0.048$; $V = 0.034$). The results suggested that there is

a significant relationship between gender, degree of urbanisation and feeling unhappy and depressed, and that the association between gender and becoming sad and depressed is clearer than the relationship between the degree of urbanisation and feeling unhappy and depressed. For example, the study of the association between gender and becoming unhappy and depressed suggested that women are much more likely to feel unhappy and depressed than men (women are 3.1% more likely to feel unhappy and depressed compared to 2.5% for males - see Appendix 4).

Also, people, particularly women, who are living in urban areas, are more likely to become unhappy and depressed than people who are living in rural areas. As David (2011) stated, those who are from urban areas are more likely to experience anxiety, depressive disorders and schizophrenia than those raised in the countryside.

This research statistically confirmed that there is a clear association between gender and becoming unhappy and a relationship between the level of urbanization and sadness and depression reported in England.

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Appendices:

Table (1): Explanatory Variable 1 = Sex

		Sex			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	5196	49.5	49.5	49.5
	Female	5298	50.5	50.5	100.0
	Total	10494	100.0	100.0	

Table (2): Explanatory Variable 2 = Degree of urbanisation

		(D) Degree of urbanisation			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Urban	8578	81.7	81.7	81.7
	Town & fringe	910	8.7	8.7	90.4
	Village, hamlet and isolated dwellings	1006	9.6	9.6	100.0
	Total	10494	100.0	100.0	

Table (3): Dependent Variable = been feeling unhappy and depressed

GHQ: Been feeling unhappy and depressed					
	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	Not at all	3265	31.1	40.9	40.9
	No more than usual	3442	32.8	43.1	84.0
	Rather more than usual	1053	10.0	13.2	97.2
	Much more than usual	223	2.1	2.8	100.0
	Total	7983	76.1	100.0	
Missing	Don't know	60	.6		
	Not applicable	2451	23.4		
	Total	2511	23.9		
Total	10494	100.0			

Table (4): Sex vs been feeling unhappy and depressed

Sex * GHQ: Been feeling unhappy and depressed Crosstabulation

% Within Sex

		GHQ: Been feeling unhappy and depressed				Total
		Not at all	No more than usual	Rather more than usual	Much more than usual	
Sex	Male	42.0%	43.2%	12.3%	2.5%	100.0%
	Female	39.9%	43.0%	14.1%	3.1%	100.0%
Total		40.9%	43.1%	13.2%	2.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.172 ^a	3	.027
Likelihood Ratio	9.187	3	.027
Linear-by-Linear Association	8.293	1	.004
N of Valid Cases	7984		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 109.04.

(D) Degree of urbanisation * GHQ: Been feeling unhappy and depressed Crosstabulation

% Within (D) Degree of urbanisation

		GHQ: Been feeling unhappy and depressed				Total
		Not at all	No more than usual	Rather more than usual	Much more than usual	
(D) Degree of urbanisation	Urban	40.8%	42.6%	13.6%	3.0%	100.0%
	Town & fringe	45.3%	42.5%	10.2%	2.1%	100.0%
	Village, hamlet and isolated dwellings	38.1%	47.4%	12.4%	2.1%	100.0%
	Total	40.9%	43.1%	13.2%	2.8%	100.0%

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.034	.027
	Cramer's V	.034	.027
N of Valid Cases		7984	

Table (5): Degree of urbanisation vs been feeling unhappy and depressed

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.082 ^a	6	.006
Likelihood Ratio	18.552	6	.005
Linear-by-Linear Association	1.332	1	.248
N of Valid Cases	7983		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 20.00.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.048	.006
	Cramer's V	.034	.006
N of Valid Cases		7983	

Table (6): Sex vs been feeling unhappy and depressed (control for degree of urbanisation)

Sex * GHQ: Been feeling unhappy and depressed * (D) Degree of urbanisation Crosstabulation

% within Sex

(D) Degree of urbanisation			GHQ: Been feeling unhappy and depressed				Total
			Not at all	No more than usual	Rather more than usual	Much more than usual	
Urban	Sex	Male	41.8%	43.1%	12.4%	2.7%	100.0%
		Female	39.8%	42.2%	14.8%	3.2%	100.0%
	Total		40.8%	42.7%	13.6%	3.0%	100.0%
Town & fringe	Sex	Male	47.3%	41.7%	8.9%	2.1%	100.0%
		Female	43.4%	42.9%	11.3%	2.4%	100.0%
	Total		45.3%	42.3%	10.2%	2.2%	100.0%
Village, hamlet and isolated dwellings	Sex	Male	38.8%	45.2%	14.5%	1.5%	100.0%
		Female	37.5%	49.6%	10.5%	2.4%	100.0%
	Total		38.1%	47.4%	12.5%	2.0%	100.0%
Total	Sex	Male	42.0%	43.2%	12.3%	2.5%	100.0%
		Female	39.9%	43.0%	14.1%	3.1%	100.0%
	Total		40.9%	43.1%	13.2%	2.8%	100.0%

Chi-Square Tests

(D) Degree of urbanisation		Value	df	Asymp. Sig. (2-sided)
Urban	Pearson Chi-Square	10.743 ^b	3	.013
	Likelihood Ratio	10.764	3	.013
	Linear-by-Linear Association	8.180	1	.004
	N of Valid Cases	6464		
Town & fringe	Pearson Chi-Square	1.783 ^c	3	.619
	Likelihood Ratio	1.790	3	.617
	Linear-by-Linear Association	1.571	1	.210
	N of Valid Cases	718		
Village, hamlet and isolated dwellings	Pearson Chi-Square	4.439 ^d	3	.218
	Likelihood Ratio	4.456	3	.216
	Linear-by-Linear Association	.035	1	.852
	N of Valid Cases	803		
Total	Pearson Chi-Square	9.121 ^a	3	.028
	Likelihood Ratio	9.135	3	.028
	Linear-by-Linear Association	8.229	1	.004
	N of Valid Cases	7985		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 109.03.

b. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 93.79.

c. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.53.

d. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.81.

Symmetric Measures			Value	Approx. Sig.
(D) Degree of urbanisation				
Urban	Nominal by Nominal	Phi	.041	.013
		Cramer's V	.041	.013
	N of Valid Cases		6464	
Town & fringe	Nominal by Nominal	Phi	.050	.619
		Cramer's V	.050	.619
	N of Valid Cases		718	
Village, hamlet and isolated dwellings	Nominal by Nominal	Phi	.074	.218
		Cramer's V	.074	.218
	N of Valid Cases		803	
Total	Nominal by Nominal	Phi	.034	.028
		Cramer's V	.034	.028
	N of Valid Cases		7985	

Table (7): Degree of urbanisation vs been feeling unhappy and depressed (control for Sex)

Degree of urbanisation * GHQ: Been feeling unhappy and depressed * Sex Crosstabulation

% within Degree of urbanisation

Sex	Degree of urbanisation	GHQ: Been feeling unhappy and depressed				Total
		Not at all	No more than usual	Rather more than usual	Much more than usual	
Male	Urban	41.8%	43.1%	12.4%	2.7%	100.0%
	Town & fringe	47.3%	41.7%	8.9%	2.1%	100.0%
	Village, hamlet and isolated dwellings	38.8%	45.2%	14.5%	1.5%	100.0%
	Total	42.0%	43.2%	12.3%	2.5%	100.0%
Female	Urban	39.8%	42.2%	14.8%	3.2%	100.0%
	Town & fringe	43.4%	42.9%	11.3%	2.4%	100.0%
	Village, hamlet and isolated dwellings	37.5%	49.6%	10.5%	2.4%	100.0%
	Total	39.9%	43.0%	14.1%	3.1%	100.0%

Total	Degree of urbanisation	Urban	40.8%	42.7%	13.6%	3.0%	100.0%
		Town & fringe	45.3%	42.3%	10.2%	2.2%	100.0%
		Village, hamlet and isolated dwellings	38.1%	47.4%	12.5%	2.0%	100.0%
	Total		40.9%	43.1%	13.2%	2.8%	100.0%

Chi-Square Tests

Sex		Value	df	Asymp. Sig. (2-sided)
Male	Pearson Chi-Square	10.769 ^b	6	.096
	Likelihood Ratio	11.211	6	.082
	Linear-by-Linear Association	.030	1	.863
	N of Valid Cases	3904		
Female	Pearson Chi-Square	15.135 ^c	6	.019
	Likelihood Ratio	15.499	6	.017
	Linear-by-Linear Association	2.353	1	.125
	N of Valid Cases	4081		
Total	Pearson Chi-Square	18.336 ^a	6	.005
	Likelihood Ratio	18.836	6	.004
	Linear-by-Linear Association	1.485	1	.223
	N of Valid Cases	7985		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 20.05.

b. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.48.

c. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 11.64.

Symmetric Measures

Sex			Value	Approx. Sig.
Male	Nominal by Nominal	Phi	.053	.096
		Cramer's V	.037	.096
	N of Valid Cases		3904	
Female	Nominal by Nominal	Phi	.061	.019
		Cramer's V	.043	.019
	N of Valid Cases		4081	
Total	Nominal by Nominal	Phi	.048	.005
		Cramer's V	.034	.005
	N of Valid Cases		7985	