An Investigation of the Relationship between Education and Volunteering

MSc Quantitative Research Methods

Previous studies have found that education is the most significant determinant of volunteering (Smith 1994; Wilson 2000). However, for many of these areas of research their focus is on the determinants of volunteering and not education. The current study takes this finding as its guideline. The UK ‘Community Life Survey (2014-2015)’ was designed in response to a need for encouraging social action and the empowerment of communities, including volunteering and charitable giving. The survey will play an important role in this investigation. This study investigates the relationship between education and volunteering once other variables have been controlled for focusing on formal and informal volunteering, as well as the act of making monetary donations to charity. One of its key findings reports that people who have high qualifications are more likely to engage in formal and informal volunteering. However, there is non-significant association between education and giving money to charity. The current study discusses the implications of these findings in relation to specific countries. Outcomes show that education measured in terms of higher levels of educational qualification suggests a significant association with engagement through formal and informal volunteering. In addition, employees who work in professional occupations and managers tend to volunteer more. The other variables such as income, gender and social capital show non-significant relationship with volunteering. An explanation might be that education increases people’s awareness around volunteering issues and this also provides them with the resources in terms of the necessary skills and knowledge that enable them to manage volunteering work. The main recommendation based on these findings is to include volunteering within the frame of education policies. This is particularly noted since education is seen as having an effect on volunteering. Therefore, with the prospect of improving societies, this suggests implications with regards to the overall impact of volunteering.

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1. Introduction

Volunteering is described as a type of unpaid work that individuals perform to benefit themselves, others and their society (Okun and Schultz, 2003). However, this concept has developed over time. Specifically, this has evolved from being a notion that refers to providing assistance to family members and friends, which is known as informal volunteering (Taniguchi, 2012), to a far broader concept that encompasses society as a whole. The twentieth century has seen volunteering becoming 'more organised and professionalized' (Putnam, 2000, p. 117). This also refers to the term formal volunteering indicating unpaid work offered to formal societies, groups or organizations (Borgonovi, 2008).

This formalising of volunteering indicates its importance both to people and to societies. Volunteering helps with the improvement of people's lives - both emotionally and physically (Musick and Wilson, 2003; Post, 2005). For society, Manners (2008, p. 15) describes the importance of volunteering in terms of completing the 'benefits the government provides'. Whereas some volunteers offer services to disabled people (Wilson and Musick, 1999), others offer emotional support to people who suffer from a natural crisis or they may donate blood to patients in need (Putnam, 2000, p. 120). Moreover, volunteer work contributes to the economy of countries. For instance, in the UK this sector provides the economy with £40 billion, while the spending is £11 billion annually (Bussell and Forbes, 2002).

Despite these benefits, a recent global change has been witnessed regarding the decline in the amount of volunteering that people commit to (Bussell and Forbes, 2002; Manners, 2008; Putnam, 2000). It can be argued that people may be more concerned about their own lives, and how to provide a secure future for them and their families resulting from the economic crisis. Moreover, it could also be considered that people are demonstrating less concern for their communities or are less likely to engage in face-to-face relationship with their neighbours or others - with this being at the expense of technology driven interaction. As a result of this lack of contact, people may very well be unaware that they may be surrounded by individuals who are in need of support. To overcome this problem,

governments have tried to find reasonable solutions. For example, the UK government includes a citizenship curriculum in schools.

One particular reason behind choosing schools may be the prospect of using such institutions as a tool to increase the amount of volunteering. Moreover, schools can provide a learning environment where individuals may develop attitudes and skills towards altruism and an overall empathy regarding others. Therefore, within the school setting, individuals draw on this approach of outward thinking by learning ‘how are we doing?’ not ‘how am I doing?’ This is addressed through learning activities that involves helping others and group work (Son and Wilson, 2012, p. 494). For this reason, an important aspect of school curricula is to teach students to be good citizens (Gesthuizen and Scheepers, 2011).

Previous studies and theoretical research suggest that education is the most powerful determinant of volunteering using different types of data sources such as national data and cross-national one. For example, Putnam (2000) claims that people with higher education tend to volunteer more. Certain of these sources of empirical research investigate the relationship between education and formal volunteering, some with informal volunteering and charitable giving, and others with both such as Taniguchi (2012). Other studies include education as a control variable when they focus on other aspects of volunteering. One explanation here, as Smith (1994) highlighted, is that education may be regarded as a strong predictor of volunteering, thus education can be seen as a confounding factor that might have an effect on the results. Furthermore, from the perspective of part of the rationale for this current study, it is particularly noted that education has rarely been the main focus of these studies, despite education being within the frame of what determines volunteering or what predicts volunteering the most.

1.2 Research Aim

With this in mind, the aim therefore of this research is to examine whether education is the most powerful predictor of volunteering once other variables are controlled. This will involve the focus on three types of volunteering which are common in literature: ‘formal volunteering’, ‘informal volunteering’, and ‘giving money to charity’. An additional goal is to investigate the relationship between volunteering and variables that have a relationship to education. If the relationship

between volunteering and these variables is strong, it may be interpreted that education is the key determinant of volunteering.

The overall rationale therefore for conducting this current research is based on the lack of understanding as to why education is the most important predictor of volunteering. Furthermore, there is a need for a greater emphasis on the role of education in increasing the amount of volunteering. The reason for pursuing this educational priority is that ‘education could shape tender minds, and even more important… (that it) could be consciously employed to shape society’ (Ravitch et al., 2001 cited in Manners, 2008, p. 16).

Consequently, this research will seek to address the gap in reporting and therefore contribute to informing the overall research in this area. With its significance as a supplier and assistant for the government, there will be a need to form a policy that requires the inclusion of volunteering in schools not just in a form of curricula, but also with regards to involving students in some work or projects. This may help to create an ethic amongst students that encourages them to be volunteers later in their life. Some people, when asked why they do not participate in volunteer work, may often respond that they were not asked to do so (Adler and Goggin, 2005). It may be interpreted as these organisations seeking to target people who already have the knowledge and the skills, therefore enabling such organisations to benefit from the volunteering sector. Therefore, if people are educated towards this and provided with the key skills for volunteering, there is the prospect that the amount of volunteering will increase.

To address these and other key issues, the outline of this report will be as follows: literature review, research questions, data and method, findings, discussion, limitations and conclusion.

2. Literature Review

With the goal of this research is to investigate the relationship between education and types of volunteering, this literature review discusses specific studies that relate education to volunteering. Moreover, this will seek to explain other determinants of volunteering that education may have an impact on such as employment. For instance, higher education can provide people with a range of benefits - amongst them ‘privileged occupations’ and ‘aesthetic appreciation’ (Carnegie Commissio,1973, p. 71)

2.1. Education

Education plays a significant role in preparing individuals to participate in volunteer work. This provides them with the knowledge, skills and abilities that are suitable for conducting such activities (Wilson, 2000; Schittker and Behrman, 2011; Einolf, 2011). Parboteeah et al. (2004, p. 438) state that ‘most educational systems socialize individuals into … helping others’. This could be seen where students are engaged in group work inside the classroom setting. It could also be noticed in the projects where schools encourage students to engage in charity giving projects. This may help students to form a key realisation of the importance of helping others, and to build an awareness that there are people in need. Within the school environment, students can learn how to be good citizens which is defined as involvement in activities that benefit the community (Wilson, 2000; Putnam, 2008; Gesthuizen and Scheeper, 2010).

A robust claim is that people with high qualifications are more likely to volunteer than people with lower levels of educational attainment (Smith, 1994; Wilson, 2000). In terms of this issue, there is no clear definition of ‘high’ and ‘low’ in the studies, but it can be interpreted as suggesting that people with high qualifications beyond school level and low can be school level or below. There are many empirical studies that investigate and support this claim.

For example, Smith (1994) indicates that individuals with dominant characteristics are more likely to participate in volunteering. These characteristics include highly educated, employed, married males with high income and wealth.

A study on Nordic countries was conducted to examine Smith's (1994) dominant status model of volunteering by Grizzle (2015). The European Values Survey (EVS) data was used for the period from 1981 to 2008. For the study, 15,866 respondents aged between 18 and 90 were chosen from five countries. The focus was on volunteering in general, hence, it might be interpreted for both types of volunteering: formal and informal. The findings of the study supported the dominant status model that highly educated people are more likely to volunteer than low educated people. 'An extra year of education increases the probability that an individual will volunteer by 1%' (Grizzle, 2015, p. 367-368). Therefore, the author suggests that there is a difference in volunteering according to educational level and that people with a higher education are participate more in volunteering. Therefore, the current study indicates that education can be a strong predictor for volunteering.

Similarly, Gesthuizen and Scheepers (2010, p. 11-13) conducted a study to examine 'the educational differences in volunteering at individual and national level'. The authors used a secondary dataset - the International Adult's Literacy Survey (IALS) from 1994-1998 featuring 17 countries. They found that 'higher educated are more or less 2.5 times more likely to volunteer as compared with lower educated' (p. 12). Another point raised was that the relationship between educational levels and volunteering vary across countries. For example, in the United States, the differences between educational levels were large (odds ratio around 4.4), while in The Netherlands this difference was lower (odds ratio only 1.48). The authors have not found clear explanations for this low difference amongst highly educated people and those with lower educational attainment. However, they do suggest that a possible explanation might be based on the welfare policies in such countries. For example, countries such as The Netherlands follow the social democratic welfare status which emphasizes that all people have the right to get high standards of benefits and services (Manners, 2008). Therefore, it can be argued here that there is a perception that the majority of people live comfortably within that context. This may explain the small gap in volunteering between highly educated people and low educated people that the author refers to. On the individual level across all countries, they find that people

with low education are 0.94 times lower than people with high education to be volunteers. This coefficient supports Smith and Wilson's claim.

To conclude, the authors state that higher educated are more likely to volunteer than lower educated. This could give a clue that education is a significant predictor for volunteering because highly educated people gain more knowledge and skills through their qualifications, thus enabling them to be aware of volunteering. These findings are somehow convincing for two reasons. First, they are consistent with previous studies on education and volunteering, and second, the data is a cross-national data which involves more than one country.

Related to this issue is another longitudinal study conducted by Van Ingen and Dekker (2010, p. 693). The authors used the Dutch Time Use Survey (DTUS) between 1975 and 2005. For each wave, a new sample was chosen. Their findings show that there is a decrease in the difference between higher and lower educated people and volunteering. The effect size of the difference in volunteering among different educational levels reduced from 1975 to 2005 to about 40%. Despite this, they have found that people with high qualifications tend to participate more in volunteering by 2.11 times higher than lower educated people when they use the main effects of the variable for educational attainment. Thus, Van Ingen and Dekker's study still supports previous lines of research that an increased level education enhances more volunteering, although the gap in volunteering between the two groups has declined over time. However, there is a particularly key limitation regarding this study. By using a different sample for each wave, the authors are unable to show within-person change, particularly since they might need to rely on it when estimating effects of educational attainment.

Another claim in the correlation between education and volunteering is regarding the human capital that education provides for people. The individual's knowledge, skills and abilities are their monetary value that he/she gets from education and makes him/her more productive is known as human capital (Schultz, 1961). Mensch et al. (2006) discuss that the likelihood of being volunteers becomes greater with individuals who have more human and social capital. Similarly, Schnittker and Behrman (2012) stress that people with high

qualifications have more chances to get full-time jobs as a result of the productivity gained through human capital. Additionally, Gesthuizen and Scheepers (2010) explain that high educational attainment provides individuals with resources that lead them to reach high positions in status within the labour market. It can therefore be argued that these resources could be the skills, knowledge and abilities that people get from education (Wilson and Musick.M, 1997. Furthermore, there is an indirect effect of education on the giving behaviour through human capital. This effect explains that education increases people's knowledge and improves human capital, and as a result education makes this giving behaviour more desirable (Brown, 2005). Therefore, human capital can explain why 'educated people are more likely to be asked to volunteer' (Wilson, 2000, p. 219).

The above studies and claims agree to some extent that education is a key element in increasing the likelihood of volunteering. To benefit from these findings, the following statement from the 'Education for Citizenship and the Teaching of Democracy in Schools' report shows how: 'We firmly believe that volunteering and community involvement are necessary conditions of civil society and democracy. Preparation for this, at the very least level, should be an explicit part of education' (QCA, 1998, P. 10).

Therefore, the current research tries to shed further light on education, and to investigate the association between it and the two main types of volunteering: formal and informal regarding charitable giving. The results may help with the importance of paying more attention to education and how countries can benefit from it. One benefit would be to encourage an increase in volunteering, particularly since the voluntary sector may provide useful work in improving people's lives. In the United Kingdom as an example, community development is dependent upon volunteering (Bussell and Forbes, 2002).

2.2. Other determinates that have an effect on volunteering

Many studies investigate factors and issues associated with volunteering. Researchers discuss these issues in order to enable people to understand the importance of volunteering appropriately and how volunteering contributes to the economy of societies. One of these issues is what characteristics the individuals have and contribute to make them volunteer more. These factors may have a relationship with education which can be a reason why they increase volunteering. Brown (2005, p. 188) states that 'education is a proxy privilege for social class and economic advantage'. The following section will therefore aim to explain the relationship between these predictors and volunteering.

2.2.1. Employment

Several studies focus on employment as another variable that might have an impact on volunteering. Most studies investigate the employment status in terms of whether individuals are full-time employees, part-time, self-employees or unemployed people. Some of them study the type of job and its potential effects on volunteering.

Work enhances volunteering by helping people to integrate socially and thus provide them with the civic skills that are essential for volunteering (Wilson, 2000, p. 220). This could explain why unemployed citizens do less voluntary work than full / part-time employees and those who are self-employed. Moreover, part-time and self-employed individuals are more likely to volunteer than full-time employees. (Smith, 1994; Wilson, 2000; Bussell and Forbes, 2002). Bussell and Forbes (2002) justify this by identifying that work leaves people with less time to volunteer although they want to do so as many people have mentioned. Specifically, this could be interpreted as being a negative relationship between full-time employment and volunteering. Thus, the notion of this leading to a shortage in numbers of volunteers. Certain countries acknowledge this and endeavour to address the situation. For example, the UK government provides some incentives to encourage employees to volunteer such as employee and

community initiatives and Business in the Community (BITC) (Bussell and Forbes, 2002).

Not only does the employment status have an effects on volunteering, but also important for consideration here is the type of occupation. Taniguchi (2006) states that people who have high level positions tend to volunteer more. Wilson (2000) mentions a similar point. The author proposes that people with high prestige jobs are more like to be asked to volunteer. The explanation given is that the core issue here is not the time but the importance of the position, and the skills that this provides for employees. For example, professionals and managers who are more attached to their work, are seen to participate more in volunteering (Wilson and Musick.M.A, 1997). Moreover, Smith (1994) has a similar perspective. Both claims about employees and having occupational status are somehow related to education. Firstly, people with more education have high salaries as a result of their 'investment in their human capital through education and training (Becker, 2009, p.17). Moreover, education in part contributes to employees gaining high status occupations (Wilson and Musick.M.A, 1997). Therefore, the impact of employment on volunteering may occur as a result of education. This could support the current research aims of paying more attention to education.

To sum up, several studies have found that part-time employees and self-employed individuals volunteer more than full-time employees and unemployed citizens. Although it may seem that those who are unemployed have more time, it may be argued that they lack the social integration that the workplace environment provides. In this case, it could be assumed that there might be socialisation effects on volunteering. Additionally, some researchers point out that there are occupational prestige effects which means that people in higher positions are more asked to volunteer.

2.2.1.1. Income

Regarding, the relationship between income and volunteering, the findings are mixed. Some researchers claim that people with higher income are more likely to participate in volunteering (Smith, 1994; Sundeen, 1992). However, other investigators have identified negative associations. For instance, in contrast to

the findings highlighted up to this point, a study conducted in Taiwan, Lee and Chang (2007) found that people with low income are more likely to volunteer than people with higher incomes (b= - 0.81). Furthermore, Grizzle (2015) found in the study about the Nordic countries that there was no statistically significant association between higher income and increasing volunteering (p-value > 0.94). To explain this, Wilson (2000) points out that the relationship between income and volunteering varies due to how income is measured. This also could be due to the types of volunteering; for example, if volunteering requires giving money and not taking care of elderly, income may play a role here.

On a possible relationship between income and volunteers, the findings are mixed, this may be due to the consideration that volunteer work is unpaid work, and thus money has no effects. Another consideration might be the types of volunteer work. However, there is a relationship between these variables and education that encourages exploring the relationship between education and volunteering.

2.2.2. Social Capital

Social capital as a concept could be referred to as ‘connections among individuals-social networks and the norms of reciprocity and trustworthiness that arise from them’ (Putnam, 2000, p. 19). Social networks could be a suitable explanation for enhances volunteering. They are ‘important in all our lives, often for finding jobs, more often finding a helping hand, companionship or a shoulder to cry on’ (Claude S.Ficher cited in Puntam, 2000, p. 20). For instance, Wilson (2000) points out that the work environment helps to enhance volunteering because of the interaction between the employees. The author also explains that social networks could be an explanation for increasing volunteering among married people, parents and extroverted people. For example, Parboteenah et al. (2004) claim educated people interact together in an environment that cares about helping others. These networks help people form important connections in their workplaces and colleges. This suggests that social effects can influence people’s decisions to volunteer due to their education and work skills.

Parboteenah et al. (2004) also used the World Values Survey (WVS), a cross-national survey. They choose their sample (38,119) from 21 countries. They

investigated the relationship between formal volunteering and social capital focusing on two measures: collectivism and degree of liberal democracy. The findings showed that there was a statistically significant correlation between formal volunteering and social capital in these two measures ($p < 0.001$). It is interpreted as suggesting that higher levels of democracy and social collectivism can enhance formal volunteering in a positive manner.

Similarly, Glanville et al. (2015) found results on social capital effects. In their analysis, they used the first wave (2002) of the European Social Survey (ESS). The ESS is a representative samples of non-institutionalised residents aged 15 or more from 21 European countries. For this study, they had respondents from 19 countries: 33,062 for donating analyses and 35,385 for informal helping. There were two variables for social capital: generalized trust which is measured by respondents' degree of agreement on three statements and social ties measured by how often participants meet socially with friends, relatives or work colleagues.

At the individual-level, the authors found that social capital behaviours have statistical significant association with volunteering and informal helping. People who trust others and have more networks tend to volunteer more. For example, one standard deviation increases in trust was correlated with about 1.4% increase in volunteering. Furthermore, there was a 0.25% increase in volunteering by 10% increase in social ties. They concluded that people who live in high-trust regions volunteer more compared to people who live in less-trust regions. The evidence in the study is somewhat robust since it covers 19 countries, although this is for one wave.

From the above evidence, social capital seems to have a positive association with volunteering. One key explanation is that the core idea of volunteering is to help people, which social capital accommodates through the connections that people make with each other. Additionally, Putnam (2000) poses that social capital has advantages for individuals and the public. This may suggest that there is an indirect effect of education on social capital, and consequently on volunteering since being in universities and then work expands people's networks.

2.2.3. Gender Differences

In addition to other characterises of individuals, gender has attracted researchers. Smith (1994) states that in the area of volunteering, studies provide differing findings with regards to which gender volunteers more. The author points out that if the dependent variable is volunteer work, then more women engage in volunteering than men. However, concerning volunteer association, men do more than women. 'Volunteer work is generally public benefit activity while association participation can be either public benefit or member benefit activity (Smith, 1993 cited in Smith, 1994, p.244). It is also explained that majority of studies have found that males are more likely to volunteer than women. The following outlines some of these studies.

Einolf (2011, p.1095) investigated 'gender differences in the correlates of volunteering and charitable giving'. Data was utilised from the 1995 Midlife in the United States (MIDUS) survey with a random sample of 3,032 respondents aged between 25 and 74 years. The author focused on gender differences in the causes of helping behaviours: 'Motivations (religiosity, generative concern, moral obligation and prosocial role identity), Resources (education, income, wealth and free time), and Social Capital (trust and social networks)'. The findings showed that there was a statistically significant difference between women and men with regards to volunteering. Around 41.6% women participate in volunteering while the proportion of volunteered men is 34.5%. Findings also indicated that whereas women were higher than men in all motivation measures except generative concern, in contrast, men were higher than women in all resource measures except free time. In the area of social capital, if there are local trusts, men volunteer more, but if volunteering depends on the social network, women volunteer more due to, for instance, their social network from participating in religious institutions. It is interesting to note therefore how the study proposes that although gender differences in volunteering is not excessive, there are nevertheless differences in the factors that encourages both women and men to volunteer.

Using the same survey (MIDUS) again as a secondary data source, Taniguchi (2006) examined 'the effects of employment and family characteristics on time

devoted to volunteering by men and women'. Women were found to be more affected by the two features than men. This was reported to be related to having little time left for volunteering after engaging in jobs and family responsibilities. For example, on average full-time employed men do 4.7 hours volunteering monthly compared to 3.9 hours done by full-time employed women. However, amongst part-time workers, on average women volunteered 7.9 hours while men volunteered 2.9 hours. In the case of unemployment, women did more volunteering than men. The research also found that women spent more time to help family members than men. On average women spent 19 hours in caregiving for the family while men spent 12 hours. It was therefore raised that as a result of this women find themselves with little time to engage in volunteering.

Mesch et al. (2006, p. 576) conducted a study on 'the effects of race, gender and marital status on giving and volunteering in Indiana'. In their findings, it was pointed out that single or married women gave more money to charity than single men. For example, single women and married women were 9% to 10% and 11% to 12% respectively more likely to donate than single men. They also found that single women volunteered 146 hours per year more than single men.

The findings of the above studies suggest that there is a gender difference in volunteering, but it is a modest difference. There may well be difficulties in finding a relation to education, however, there would be value in further examining if there is a gender difference with regards to volunteering. The role for education may be in reducing the gap if there is any because both males and females can play an important role regard the prospect of increasing volunteering.

2.2.3.1. Marital status

Marital status usually is investigated in the light of gender differences. Several studies conclude that married people: male and female are more likely to volunteer than single men. Also, parents who have school-age children are more likely to volunteer because of the volunteer that their children participate in (Smith 1994, Wilson 2000, Mesch et al., 2006 and Taniguchi, 2006). Those authors suggest that being married increases people networks with their neighbours and community which can lead to them participating more in volunteering. The same is observed concerning parents and their involvement with school activities.

To conclude, many studies agree that married people are more likely to volunteer than single individuals. The reason could be concerning the more social networks. This would suggest that married individuals can be an effect factor in the voluntary sector through their involvement in neighbourhood and schools' volunteer work. This may indicate that schools can benefit from them in their teaching and through the process of educating students to be volunteers in the future.

The discussion in the literature review has revealed some characteristics of individuals that has positive association with volunteering. The most consistent predicator is more education and that there are educational difference effects on volunteering. Another main predictor is social capital which helps people to form connections resulting in more volunteering. Time is another determinant of volunteering which can be explained through people's employment status. Regarding income and gender difference, results are mixed. Some research explains this to be the measures that have been used to investigate such relationships with volunteering. Moreover, there seems an indirect impact of education on the determinants of volunteering which contribute to the research aim and hypothesis.

3. Research Questions

The current study has at its core the key focus on education as the main and the key independent variable of the research. Importantly, this will allow for a clear gap in this area of research to be addressed. Therefore, this current research endeavours to highlight the significance of education and its association with volunteering through addressing the following questions:

1. Is education the most important predictor of volunteering once other variables have been controlled?

2. Is there a strong association between education and informal volunteering once other variables have been controlled?

3. Does education determine giving money to charity the most?

4. Are professionals and mangers more likely to volunteer?

With these research questions in mind, the goal is to investigate the relationship between education and different types of volunteering, namely - formal, informal and ‘giving money to charity’ using the latest Community Life Survey (2014-2015). As indicated, formal and informal volunteering are unpaid help or work individuals do without obligation. The difference between them is that formal is conducted for formal organization and is more organized, with informal suggesting where volunteering is offered to, for instance, families, friends and neighbours. The purpose of using this new survey is to examine the extent to which education is still seen as the consistent, strongest predicator of volunteering, or if indeed this effect has been significantly reduced.

The next chapter will investigate these questions using latest Community Life Survey (July 2014-April 2015) focusing more on education as the main predictor.

4. Data and Method

For this research, I have used the Community Life Survey (2014-2015) from the UK database. This cross-sectional survey which is the third wave of the official survey is a household one conducted in England that aims to encourage social actions such as volunteering and charitable giving. Along with this is the promotion of community empowerment and participation by providing a nationally representative data on behaviours and attitudes to make policies and actions in such areas. It consists of a national, representative sample of adults aged 16 or over in England. The samples are chosen randomly through postal codes. For each household, only one adult is selected. The total number of respondents who participated is 2,022 individuals from the 3,437 initially selected. An interview with a questionnaire is used to collect data from the survey and the data includes some measures used in the Citizenship Survey to help track trends in measures over time (Cabinet Office, 2015). The aims of the survey match the research aims of this current study thus confirming suitability.

4.1. Dependent Variables

This research is interested in examining three dependent variables: ‘Formal volunteering’, ‘Informal help’ and ‘giving money to charity’. Examples of formal volunteering include taking part in groups, clubs or organizations that care for the environment, animals or safety. For informal unpaid help, an example is looking after a pet or a property.

Formal volunteering is a binary measure: 0= not doing formal volunteering in the last 12 months and 1= doing formal volunteering in the last 12 months. The same measure for informal help (0= No and 1= yes). The variable ‘give money to charity in past 4 weeks’ also has No and Yes but includes missing data too. Therefore, missing data is excluded and dichotomized variables have been created and coded Yes=1 for ‘giving’ and No=0 for ‘not giving’ along with a separated dummy for missing cases.

In this research,’ formal volunteering’ refers to unpaid work offering services to organizations, while ‘informal help’ refers to giving help to families, friends and neighbours (Mesch et al., 2006). The main concern is to investigate the relationship between these three dependent variables and education once other variables are controlled.

4.2. The Main Independent Variable: Education

There are two measures for highest educational qualification in the dataset. The first one is for respondents’ highest qualification for all ages, but respondents aged 70+ qualification is not known. The second measure is respondents’ (aged 16-69) highest qualification. Therefore, the second variable is chosen to resemble education. The variable for respondents’ (aged 16-69 years) highest qualification include seven categories: degree or equivalent, higher education below degree level, A level or equivalent, GCSE grades A-C or equivalent, GCSE grades D-E grades or equivalent, foreign and others qualifications and no qualifications.

The categories have been reduced to four by recoding some of them into different dummy variables as follows: high qualification includes degree or equivalent,

higher education below degree level, A level or equivalent, GSCE qualifications contains GCSE grades A-C or equivalent, GCSE grades D-E grades or equivalent, foreign qualifications and no qualifications which is the reference category.

4.3. Control Variables

The control variables are those that might have a relationship with formal or informal volunteering and to the key predictor 'education' (Taniguchi, 2012). This section will explain them.

4.3.1. Occupational Class

Occupational class is a variable that measures group majors in the dataset (Cabinet Office, 2015), as in the following table (1):

Table (1): Group major	
1.managers, directors and senior officials 2.professional occupations 3. associate professional and technical occupations 4.administrative and secretarial occupations 5.skilled trades occupations	6. caring, leisure and other service occupations 7. sales and customer service occupations 8. process, plant and machine operatives 9. Elementary occupations.

This variable includes nine categories. Thus, I have sub-divided these categories into four main categories. '*Managers and professional occupations' variable* include managers, directors and senior officials, professional occupations and associate professional and technical occupations. The variable *'skilled occupations'* includes administrative and secretarial occupations along with skilled trades occupations. Caring, leisure and other service occupations, sales and customer service occupations and process, plant and machine operatives are recorded

under '*service occupations'*. The last dummy viable is '*elementary occupation'* which is the reference category.

4.3.2. Work Status

There are two variables for the work status. The first variable is whether the respondent is working full time or part time. Originally this variable has four categories including full-time, part-time and missing values, I have recoded them into 1 = full-time and 0 = part-time which is the reference category. The second variable is respondent economic status which includes three categories beside the missing cases: in employment, unemployed and economically inactive. I have recoded them as: 0 = unemployed and economically inactive (reference category) and 1 = employed.

4.3.3. Income

For the income, the variable is the respondent's gross income (for those with a partner) which contain 9 categories. I have recoded this into three main categories: High Income for those who get £ 20,000 or more; Low Income which is under £20,000 and; No Income. High income is the reference category.

4.3.4. Age and Gender

I have controlled for age using three categories: young (16-24), middle (25-64) (reference category), and old (65+). The gender variable is a dummy variable with two groups: 0 = male (reference category) and 1 = female.

4.3.5. Marital Status

This variable contains 6 categories: married, cohabiting, divorced, separated, widowed and single. I have recoded them into three categories:

married (married and cohabiting), separated (divorced, separated and widowed) and single. Married is the reference category.

4.3.6. Social capital

'Trust in people living in neighbourhood' and 'whether chat to neighbours more than just help' are two measures for social capital. Trust variable has four categories: many can be trusted (reference category), some can be trusted, few can be trusted, and none can be trusted beside the missing cases. I have recoded them as dummies putting none can be trusted and just moved as one dummy. The variable that measures chatting has three categories: 'more than hello', 'just hello' and 'don't have any neighbours'. I have recoded 'just hello' and 'don't have any neighbours' as one dummy. 'More than hello' is the reference category.

5. Analytical Strategy

In order to estimate the effects of the determinants on volunteering, I have used logistic regression since there are binary variables as outcomes. Also, regression is a useful method for estimating the association between variables and it is frequently used in the educational research (Ravallion, 2001). It also controls for all the observed characteristics that are related to the selection (Ravallion, 2001).

First I checked the descriptive statistics using frequency tables that shows the percentage of each categorical variable (Table 2). Next, I ran logistic regression models into two steps for each dependent variable. For the first step, I ran a simple logistic model between formal volunteering and each independent variable to examine the simple association between them. In the second step, I conducted a multivariate model with 'formal volunteering' as the dependent variable and all the variables to test the relationship between formal volunteering and education once all variables have been controlled (Table 3).

I have repeated the same two steps for the logistic regression with 'informal help' as dependent variable (Table 4) and 'give money to charity' at the dependents variable (Table 5).

Table 2: Descriptive Statistics

Variables	N	Valid Percent (%)
Dependent Variables	**2022/2019**	
Formal Volunteering(Yes)	826	40.9
Informal Help (Yes)	1189	58.5
Give Money to Charity (Yes)	1544	76.5
Independent Variables		
Highest Qualifications	**1606**	
1.High_Qualifications	850	52.9
2.GCSE_Qualifications	426	26.5
3.Foreign_Qualifications	28	1.7
4.No Qualification (RC)	302	18.8
Work	**1897**	
1.Full-Time	1379	72.7
2.Part_time (RC)	518	27.3
Economic Status	**2022**	
1. Employed	1082	53.5
2.Unemployed (RC	940	46.5
Occupational Class	**1882**	
1.Managers and Professionals	721	38.3
2.Skilled_Occupations	443	23.5
3.Service_Occupations	482	25.6
4.Elementry Occupations (RC)	236	12.5
Income	**982**	
1.High Income (RC)	434	44.2
2.Low Income	515	52.4
3.No Income	33	3.4
Age	**2022**	
Young (16-24)	146	7.2
Old (65+)	593	29.3
Middle (25-64) (RC)	1283	63.4
Sex	**2022**	
1.Female	1182	58.5
2.Male(RC)	840	41.5
Marital Status	**2022**	
1.Separated	480	23.7
2.Single	415	20.5
3. Married (RC)	1127	55.7
Trust	**1907**	
1.ManyCanBeTrusted (RC)	805	42.1
2.SomecanBeTrusted	684	35.9
3.FewCanbeTrsuted	368	19.3
4.NoneCanBeTrsuted	53	2.8
Chatting with Neighbours	**2015**	
1.MoreThanHello (RC)	1852	91.9
2.JustHello	163	8.1

Table 2 above shows the percentages of all the dependent and independent variables. It can be seen in the table the proportion of respondents who do informal help (58.8%) in the last 12 months is more than those who participate in formal volunteering (40.9%). Majority of individuals give money to charity in the past 4 weeks (76.5%).

Around half of the sample have high qualifications (52.5%). Most of the participated are employed (53.5%) and about 72.7 % of the participants are full-time employee. Comparing between the occupational majors, there are slightly more people who have high professional occupations (38.3%). Additionally, more people are in the low income's categories. More than half of the sample (58.8%) are female. The table also shows that most of the participants are married, or they live with partners (55.7%). Most of the respondents are middle-aged (25-69). More people think that many of those who live in their neighbourhood can be trusted (42.1%) and the majority of them have 'more than hello' conversation with their neighbours (92%).

6. Findings

As mentioned earlier, logistic regression has been conducted to examine whether education is the most powerful predictor for all kinds of volunteering once other variables are controlled. Thus, there are two models for each dependent variable. The first model focuses on the relationship between the dependent variable and each independent variable separately (simple logistic regression model) to see if the results consistent with previous studies regarding the determinants of volunteering. The second model investigate the relationship between education and the outcome variables once other predictors are controlled (multivariate logistic regression model). The results are represented in Tables 3, 4 and 5 below.

6.1. Formal Volunteering as the Dependent Variable

6.1.1. Simple Logistic Regression

In Table 3, the column heading (1) shows the results of the simple logistic regression model with 'formal volunteering' as the dependent variable. It can be seen that there is a very strong association between highest qualification and formal volunteering. There is a statistically significant difference between educational levels in the amount of formal volunteering. For example, the odds of formal volunteering among people with high qualification are 2.710 times higher than those with no qualifications. However, the odds of formal volunteering for people with GCSE qualifications are 0.745 times lower than respondents with no qualifications. There is non-significant association between people with foreign qualifications and those with no qualifications which means that there is no difference between them in formal volunteering. Overall, having high qualifications increases the probability of volunteering formally.

Regarding work status, the association between full-time employees and formal volunteering is statistically non-significant and therefore, there is no difference between full-time and part-time-employees in doing formal volunteer work. However, there is a strong association between employees and formal volunteering. The odds of formal volunteering for employees being 1.605 times higher than unemployed respondents. Additionally, some occupational class's dummies have a strong effect on formal volunteering. For example, the odds of formal volunteering for managers and professionals are 2.354 times higher than the odds of people with elementary occupations. There is however a statistically a negative, significant association between low income and formal volunteering. The odds of formal volunteering for people with low income are 0.755 times lower than those with high income.

There is no difference between young and middle-aged people in the amount of formal volunteering that they do. However, there is a negative, strong association between older people and formal volunteering. The odds of formal volunteering for older people are 0.709 times lower than those of middle age.

The table shows that there is non-significant difference between males and females and between married and single individuals in participating in formal volunteering. However, the odds for separated, divorced or widow of doing formal volunteering are 0.619 times lower than those for married. Moreover, there is a negative, significant association between trust, having long conversations and formal volunteering. The odds of formal volunteering of people who think that few people can be trusted in their neighbourhood are 0.546 times lower than those who think many can be trusted. The odds of formal volunteering of people who say just hello to their neighbours are 0.603 times lower than those who chat more than hello.

6.1.2. Multivariate Logistic Regression

Column 2 in the same Table 2 shows the results after controlling all the variables (multivariate model). There is a strong significant association between highest education and formal volunteering once other variables have been controlled. The odds ratios increase from the previous model. The dummy variable high qualification is the only significant dummy and all the others are not different from no qualification in formal volunteering. The odds of formal volunteering of people with high qualifications are now 2.443 times higher than those of people with no qualifications.

All other variables are now non-significant after controlling of variables expect occupational class and trust. The only significant dummy is managers and professionals. The odds of formal volunteering for managers and professional are 2.952 times higher than those of elementary occupations. Controlling for all variables, there is a negative, significant association between trust and formal volunteering. The odds of formal volunteering for people who think some people can be trusted or few people can be trusted are 0.631 times and 0.580 times respectively lower than those who think many people can be trusted.

Table 3: Logistic Regression

Variables	**Formal Volunteering in the last 12 months**			
	Simple (1)		**Multivariate (2)**	
Highest Qualifications	**B**	**OR**	**B**	**OR**
1.High_Qualifications	0.997***(0.105)	2.710	0.893**(0.273)	2.443
2.GCSE_Qualifications	-0.294*(0.116)	0.745	0.384(0.273)	1.468
3.Foreign_Qualifications	0.140(0.382)	1.150	0.894(0.600)	2.445
4.No Qualification (RC)		1.00		1.00
Work				
1.Full-Time	-0.174(0.104)	0.840	-0.498*(0.205)	0.608
2.Part_time (RC)		1.00		1.00
Economic Status				
4. Employed	0.473***(0.092)	1.605	0.077(0.216)	1.080
5.Unemployed (RC		1.00		1.00
Occupational Class				
1.Managers and Professionals	0.856***(0.097)	2.354	1.082**(0.345)	2.952
2.Skilled_Occupations	-0.164(0.111)	0.849	0.532(0.342)	1.702
3.Service_Occupations	-0.300**(0.109)	0.741	0.472(0.331)	1.602
4.Elementry Occupations (RC)		1.00		1.00
Income				
1.High Income (RC)		1.00		1.00
2.Low Income	-.0281*(0.129)	0.755	0.159(0.199)	0.422
3.No Income	-0.289(0.362)	0.749	-0.418(0.503)	0.405
Age				
Young (16-24)	0.251(0.172)	1.286	0.941(0.782)	2.562
Old (65+)	-0.344**(0.101)	0.709	-0.214(0.292)	0.807
Middle (25-64) (RC)		1.00		1.00
Sex				
1.Female	0.119(0.092)	1.127	-0.114(0.173)	0.892
2.Male(RC)		1.00		1.00
Marital Status				
1.Separated	-0.480***(0.110)	0.619		
2.Single	-0.044(0.112)	0.957		
3. Married (RC)		1.00		
Trust				
1.ManyCanBeTrusted (RC)		1.00		1.00
2.SomecanBeTrusted	-0.252*(0.098)	0.777	-0.460**(0.170)	0.631
3.FewCanbeTrsuted	-0.606***(0.125)	0.546	-0.545*(0.229)	0.580
4.NoneCanBeTrsuted	-0.893**(0.332)	0.409	-1.159(0.708)	0.314
Chatting with Neighbours				
1.MoreThanHello (RC)		1.00		1.00
2.JustHello	-0.506**(0.177)	0.603	-0.440 (0.388)	0.257
Constant			-0.847(0.457)	0.429
Note: SE in parentheses,	P<0.10, *p<0.05, **p<0.01, ***p<0.001			

6.2. Informal help as the Dependent Variable

Table 4 reports the results of informal help as dependent variables. As with formal volunteering, there are two columns. The first column gives the results of the simple relationship between informal help and each predictor and the second one shows the multivariate association of informal help and highest qualification once other variables have been controlled.

6.2.1. Simple Logistic Regression

There is also a positive, significant association between highest qualifications and informal unpaid help. The odds of informal help of people with high qualifications are 1.953 times higher than individuals with no qualifications. There is no difference between people with GCSE-qualifications or foreign qualifications and people with no qualifications in informal help.

There is a negative, significant relationship between full-time employees and informal help. Moreover, there is a very positive, strong association between employment and informal help. The odds of informal help of employees are 1.530 times higher than those of unemployed people. High status occupations have a significant effect on informal volunteering. Being a manager increases the probability of participating in informal unpaid work. The odds of informal unpaid help for manager and professionals are 1.486 times higher than those with elementary occupations. Income shows non-significant effect on informal, unpaid help.

Regarding the relationship between age and informal help, there is no difference between young and middle-aged respondents in informal help. Yet, there is a strong, negative relationship between old people and informal help. The odds of informal help of old people are 0.679 times lower than those of middle-aged people.

Contrary to formal volunteering, there is a statistically significant difference between males and females in informal help. The odds of informal helps of females are 1.223 times higher than those of males. Also, there is no difference between separated, divorced, widowed, single and married people in informal help.

For social capital measures, the association between people who think that few or none be can be trusted and informal help is significantly strong. However, the association is negative. Also, there is a strong, negative association between no conversation among neighbours and informal help. The odds of informal volunteering among people who just say hello to their neighbours are 0.652 times lower than those who chat more with their neighbours.

6.2.2. Multivariate Logistic Regression

After controlling all the variable, there is still a significant relationship between the highest qualifications and informal help. Having high qualifications increases the probability of participating in informal help. The odds of informal volunteering among people with high qualifications are 2.411 times higher than those of people with no qualifications. All other independent variables have non-significant effects on informal help.

Table 4: Logistic Regression

Variables	**Informal Help in the last 12 months**			
	Simple (1)		**Multivariate (2)**	
Highest Qualifications	**B**	**OR**	**B**	**OR**
1.High_Qualifications	0.669***(0.104)	1.953	0.880**(0.258)	2.411
2.GCSE_Qualifications	-0.218(0.115)	0.804	0.294(0.253)	1.342
3.Foreign_Qualifications	-0.008(0.390)	0.992	0.802(0.613)	2.229
4.No Qualification (RC)		1.00		1.00
Work				
1.Full-Time	-0.209*(0.106)	0.811	0.035(0.207)	1.036
2.Part_time (RC)		1.00		1.00
Economic Status				
1. Employed	0.425***(0.091)	1.530	0.278(0.214)	1.321
2.Unemployed (RC		1.00		1.00
Job Majors				
1.Managers and Professionals	0.396***(0.098)	1.486	0.480(0.324)	1.616
2.Skilled_Occupations	0.010(0.111)	1.010	0.384(0.317)	1.468
3.Service_Occupations	-0.204(0.107)	0.816	0.441(0.304)	1.554)
4.Elementry Occupations (RC)		1.00		1.00
Income				
1.High Income (RC)		1.00		1.00
2.Low Income	-0.108(0.131)	0.898	0.323(0.202)	1.381
3.No Income	-0.544(0.355)	0.580	0.151(0.497)	1.163
Age				
Young (16-24)	0.004(0.175)	1.005	-1.083(0.766)	0.339
Old (65+)	-0.387***(0.099)	0.679	-0.381(0.281)	0.683
Middle (25-64) (RC)		1.00		1.00
Sex				
1.Female	0.201*(0.092)	1.223	0.174(0.175)	1.190
2.Male(RC)		1.00		1.00
Marital Status				
1.Separated	-0.149(0.106)	0.862		
2.Single	-0.025(0.112)	1.025		
3. Married (RC)		1.00		
Trust				
1.ManyCanBeTrusted (RC)		1.00		1.00
2.SomecanBeTrusted	-0.108(0.097)	0.897	-0.103(0.175)	0.902
3.FewCanbeTrsuted	-0.320**(0.117)	0.726	-0.307(0.225)	0.735
4.NoneCanBeTrsuted	-0.594*(0.280)	0.552	0.226(0.657)	1.253
Chatting with Neighbours				
1.MoreThanHello (RC)		1.00		1.00
2.JustHello	0.428**(0.164)	0.652	-0.325(0.373)	0.723
Constant			-0.781(0.437)	0.458
Note: SE in parentheses,	P<0.10, *p<0.05, **p<0.01, ***p<0.001			

6.3. Give Money to Charity as the Dependent Variable

Table 5 gives the results of the association between the outcome ‘give money to charity’ and first with each predictor (column 1) and second with highest qualifications once all the predictors have been controlled (column 2).

6.3.1. Simple logistic Regression

The simple logistic regression model (column (1)) shows that there is a strong relationship between highest qualifications and ‘giving money to charity’ (Research Q: 3). The odds of giving money of people with high qualifications are 1.997 times higher than those with no qualifications. GCSE and foreign qualifications show non-significant association with give money to charity.

Being employed increases the probability of giving money. There is a very strong association between occupational class and giving money. The odds of giving money of managers and professional are 1.882 times higher than those with elementary occupations. Additionally, there is non-significant association between income and giving money.

There is a very strong, negative association between young people and giving money. There is a positive, strong correlation between females and giving money to charity. For example, the odds of females giving money are 1.598 times higher than those of males. Also, there is a very strong, negative association between single and giving money to charity. The odds of giving money for single people are 0.601times lower than those of married one. All social capital measures show a strong, negative relationship with giving money and they are statistically significant.

6.3.2. Multivariate logistic Regression

Column 2 reports non-significant association between highest qualifications once other variables are controlled. Moreover, after controlling for all the variables, there is a strong, significant difference between females and males in giving money. Females are more likely to give money than males. Also, there is a negative, significant relationship between young people and giving money. The table shows all remaining variables have non-significant relationship with giving money (Research Q: 3)

Table 5: Logistic Regression

Variables	**Give money to charity in past 4 weeks**			
	Simple (1)		**Multivariate (2)**	
Highest Qualifications	**B**	**OR**	**B**	**OR**
1.High_Qualifications	0.692***(0.120)	1.997	0.588(0.305)	1.800
2.GCSE_Qualifications	-0.119(0.132)	0.888	0.204(0.293)	1.226
3.Foreign_Qualifications	-0.453(0.409)	0.636	1.243(0.844)	3.467
4.No Qualification (RC)		1.00		1.00
Work				
1.Full-Time	0.032(0.123)	1.032	0.454(0.248)	1.574
2.Part_time (RC)		1.00		1.00
Economic Status				
1. Employed	0.471***(0.106)	1.601	0.212(0.254)	1.236
2.Unemployed (RC		1.00		1.00
Occupational Class				
1.Managers and Professionals	0.632***(0.122)	1.882	-0.076(0.384)	0.927
2.Skilled_Occupations	0.174(0.134)	1.190	0.233(0.379)	1.263
3.Service_Occupations	-0.393**(0.170)	0.675	-0.100(0.350)	0.905
4.Elementry Occupations (RC)		1.00		1.00
Income				
1.High Income (RC)		1.00		1.00
2.Low Income	-0.478**(0.164)	0.620	-0.477(0.248)	0.621
3.No Income	-0.435(0.399)	0.647	-0.042(0.668)	0.959
Age				
young	-0.865***(0.178)	0.421	-2.025*(0.796)	0.132
Old	-0.102(0.114)	0.903	-0.084(0.328)	0.919
Middle (RC)		1.00		1.00
Sex				
1.Female	0.469***(0.106)	1.598	0.841***(0.222)	2.319
2.Male(RC)		1.00		1.00
Marital Status				
1.Separated	-0.091(0.122)	0.913		
2.Single	-0.510***(0.122)	0.601		
3. Married (RC)		1.00		
Trust				
1.ManyCanBeTrusted (RC)		1.00		1.00
2.SomecanBeTrusted	-0.080(0.113)	0.923	-0.225(0.217)	0.799
3.FewCanbeTrsuted	-0.427**(0.130)	0.652	-0.065(0.284)	0.937
4.NoneCanBeTrsuted	-1.050***(0.282)	0.350	-0.288(0.695)	0.750
Chatting with Neighbours				
1.MoreThanHello (RC)		1.00		1.00
2.JustHello	-0.711***(0.172)	0.491	-0.767(0.407)	0.465
Constant			0.581(0.520)	1.787
Note: SE in parentheses,	P<0.10, *p<0.05, **p<0.01, ***p<0.001			

7. Discussion

Volunteering plays a crucial role in communities. It can contribute to improving the lives of many people across the world. This current research has used the Community Life Survey (2014-2015) from the UK data to examine the relationship between education and types of volunteering: formal, informal and giving money to charity.

It contributes to existing literature regarding volunteering through its focus on education as the major determinant of volunteering. It has presented the evidence that people with high level of education are more likely to participate in both formal and informal volunteering in both models: simple and multivariate logistic regression (research Qs: 2 and 3). This finding is consistent with a number of studies that have examined the field of volunteering and its predictors, thus supporting the notion that more education increases the amount of volunteering - as discussed and presented by Smith (1994), Wilson (2000), Taniguchi (2012) and Gesthuizen and Scheepers (2010).

The multivariate regression model, with formal volunteering as the dependent variable, has shown an evidence that individuals who have high status occupations such as managers and professional tend to do more formal volunteer work than other employees (research Q; 4). However, it has non-significant association with informal volunteering. This may be clarified by the evidence that managers and professionals have more skills and knowledge although that education is controlled for. However, this may not be due to their status as managers, but it rather due to their skills and knowledge (Wilson, 2000). Furthermore, being managers or professionals is a sequence of education that they have achieved (Wilson and Musick.M.A, 1997).

Interestingly, most of the other variables show non-significant association with formal or informal volunteering and giving money in the multivariate model. With formal volunteering as the dependent variable, people who believe that in their neighbours there are trusted people tend to volunteer more- thus supporting the findings of Glanville et al. (2015). When ‘giving money to charity’ was the dependent variable, females tend to give money more than males. This may not

be generalized, particularly since the measure focused on one month. However, the model shows the same result as Mesch et al. (2006).

On the bivariate relationship, most of the variables show negative, significant association with formal and informal volunteering and give money to charity. Only people with high qualifications and employed as managers or professionals have positive significant association with formal volunteering. The previous characteristics besides being a female have positive, significant relationship with informal volunteering as dependent variable. People with high qualifications and employed as managers or professionals and female have positive significant association with 'give money' as dependent variable. Some of these results are consistent with the previous dominant status model of Smith (1994), as discussed in the literature review.

A possible explanation of this weak association between volunteering and the control variables such gender is that volunteering can be as 'productive in the same way that ''market work'' is productive' (Wilson and Musick, 1999, p.244). In this case, volunteering needs 'inputs' or 'resources' that would increase it such as education and work (Wilson and Musick.M, 1997, p.694, 698). Therefore, there is significant relationship between education and work and volunteering.

This discussion seeks to provide an overall explanation and present an understanding as to why education has this strong association with volunteering. The key element here is the awareness of others, and with this Wilson (2000) emphasised that education expands people's awareness of their society's problems resulting in having sense of responsibility which increases volunteering. Therefore, having more education could lead to increasing this awareness. Another explanation might be in human capital theory which focuses on the productivity that highly educated people have through the skills, knowledge and abilities that education provides them (Wilson, 2000, Wilson and Musick, 1999).

Furthermore, it could be simply that education is only a sign or an indicator of being more skilful as the signalling theory claim and thus educated people are asked more to volunteer (Son and Wilson, 2012). Moreover, Gesthuizen and Scheepers (2010) point out that highly educated people are more likely to volunteer because of their cognitive competences that they obtain in their

education and that volunteering give them the chance to utilize these commences which are normally higher than those of low educated people. Another feasible explanation deriving from this point could be that highly educated people might have more intelligence and their innate ability is the influencing factor which encourages them to volunteer. Therefore, perhaps education has no relationship here. The reason is that the current research examines association and not causation. A final robust reason is that people with more education are mostly employees and many of them have high status occupations (Wilson and Musick.M.A, 1997).

Many countries have realised the importance of schooling in enhancing volunteering. They have made initiatives and policies to benefit from this powerful tool. For example, in the United States of America (USA) there is no curriculum in school such as citizenship education. However, the majority of the states apply the concept of citizenship, community services and volunteering in their schools. Maryland, as an example was the first state to include volunteering as a part of graduation (Manners, 2008). The United Kingdom has recently included citizenship as a compulsory curriculum in schools which focuses more on democracy and not volunteering which is up to schools (Manners, 2008). Comparing the amount of volunteering between the two countries, the USA has the highest rate of volunteering (Manners, 2008). This may be a reflection of the practical approach adopted in the USA for which students follow a way of learning by doing, and by in-service learning. Moreover, sultanate of Oman has recently included charitable giving and volunteering as a club in schools in which students freely choose to join it or not. I would suggest that the Omani experience in this field needs to be expanded through further investigation to see its effects because in a way it implies the meaning of volunteering which is unobligated work.

It is important to note that there is an opportunity to gain a greater understanding as to how volunteering is perceived in the UK compared to the US. For this reason, regarding any differences between the UK and US approach, it is suggested that future research would be beneficial. However, volunteering is not an obligated action and it is argued that people do it because ‘they think it is the right thing to do’ (Son and Wilson, 2012, p.475). This may place students under pressure and they may not continue doing this after graduation. On the other

hand, the UK's policy emphasizes democracy and not volunteering. Therefore, including volunteering in the school curriculum needs more work and needs to be done separately from grades or obligations.

Volunteering brings benefits to societies. In order to encourage people to increase the amount of volunteering that they provide, this research finds that education is the most powerful tool that may increase both formal and informal volunteering. Although this study focuses on level of education, it could be interpreted that education plays a significant role in volunteering and therefore, it would be beneficial to include volunteering in education. However, it needs to be away from being an obligation. Students need to be taught this desirable behaviour in a way that they will continue to do in the future and not to achieve other purposes like enrolment to colleges or for getting jobs (Holdsworth and Brewis, 2014). Moreover, it needs to be in an atmosphere that involves group work and doing projects because volunteering can be a way of enhancing social cohesion and it will help them to practice how to be good citizens and volunteers which is a way of learning by doing (Geboers et al., 2013)

Since this study has tried to show the powerful effect of education on volunteering using new cross-sectional survey, it would be of particular interest for future studies to investigate the effect of a citizenship education curriculum on volunteering among high school students and if there is an effect of volunteering on their school performance and outcomes in the UK.

8. Limitations

The key limitations in this study are as follows. First of all, using secondary data does not allow the researcher the degree of flexibility that primary data would provide. For example, in this data the variable that measures education is highest qualifications. This restricts the researcher to focusing on the difference between educational levels. Therefore, it would be preferable to have a variable that measures the effects of citizenship curriculum as an example (Parboteeach et al., 2005; Son and Wilson, 1997).

Another limitation is using regression method as the research method. However, this method does assist in achieving the aim of this study which is finding the association between education and volunteering. However, one of the disadvantages of regression is that it could not give the causal relationship between education and volunteering. It fails in proving causation. The reason is that regression shows the association between observable characteristics and it cannot give the estimation of unseen variable such as innate ability in the case of this study (Johnson and Christensen, 2008, Ravallion, 2001). Therefore, as for future research examining causal relationship between education and volunteering, this would be of great interest for policy makers who are willing to increase the amount of volunteering through education. Despite these limitations, this study does address the aim of the research, and adds to the literation by shedding light on education as the key and main predictor of volunteering.

9. Conclusion

This research is contribution to the studies that examine the predictors of volunteering and come to a conclusion that education is the most powerful determinant of volunteering (Smith, 1994, Wilson, 2000, Putnam). It also supports other studies that highlight that people with highest qualification are more likely to volunteer (Gesthuizen and Scheepers, 2010).

The contribution of this current study is that it sheds more light on education by controlling all other predicators and examining its association with volunteering: formal and informal. More importantly, it has used a new cross-sectional survey: The Community Life survey 2014-2915 to shows that education is still the strongest predictor of volunteering.

The results of this research is an evidence to suggest that education plays a crucial role in volunteering. The study shows that people with highest qualification volunteer more than others. Therefore, paying more attention to education and improving its quality could contribute to the expansion of voluntary sector because improving the quality of education could lead to that many people have more qualifications. As a result, they might get good occupations such as

managers that enable them to volunteer which is another evidence that this project has shown.

The evidence in this research may suggest also the inclusion of volunteering in education. Many countries realize the importance of volunteering in improving the welfare of society and recognize the ability of education to increase volunteering. These countries such as the UK include citizenship curriculum in which one of its aims is volunteering. However, applying such policies needs to be done carefully to separate volunteering from being mandatory, particularly since volunteering as a concept indicates being willing to offer unpaid help to others. Changing this to being obligated may not achieve the purpose of using education as a tool to increase volunteering. The main purpose of including volunteering in schools is to nurture a behaviour that will continue with students later in their lives.

In conclusion, this research focusses on simple association between education and volunteering. I hope that future research will extend this study by examining the casual relationship between education and volunteering to convince policy makers in area of education and social policy to benefit from education in volunteering.

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