The Educational and Employment Aspirations of Adolescents from Areas of High
Deprivation in London

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Abstract

Adolescents from areas of high deprivation are often assumed to have low aspirations for the future. However, recent research has suggested otherwise and there have been calls for more substantial investigation into the relationship between poverty and aspiration. This article reports levels and variation in aspiration from 1,214 adolescents (49.5% male; 50.5% female) living in areas of high deprivation across 20 London boroughs. A strength of this study is our large and diverse population of low socio-economic status (SES) adolescents, comprising of white British (22%), black African (21%), black Caribbean (9%), Indian/Pakistani/Bangladeshi/Other Asian (24%), mixed ethnicity (9%), and 15% defining themselves as Other. Our measures indicated a high group level of reported aspiration with notable variations. Females reported higher educational (but not occupational) aspirations than males; white British students reported lower educational and occupational aspirations than other ethnic groups; and black African children reported the highest educational aspirations. Perceived parental support for education had the largest positive association with aspirations. In contrast to previous findings from studies carried out in the United States, aspirations were found to be negatively associated with perceptions of school and school peer environment. These measures explored feelings of safety, happiness and belonging within the school environment and school peer group. We discuss possible explanations for this unexpected finding within our population of adolescents from UK state schools and how it might affect future policy interventions. This study makes an important contribution to the literature on adolescent aspirations because of the unique nature of the data sample and the multiple domains of functioning and aspiration measured.

Introduction

Studies over the last ten years have reported that levels of educational and occupational aspiration in adolescents are an increasingly significant predictor of both educational achievement and future success in the job market (Rothon, Head, Klineburg, Stansfeld, 2011; Schoon & Parsons, 2002; Mau & Bikos, 2000). Research findings have suggested the memory of strong career aspirations in adolescence also impacts on adult personal identity and wellbeing (Ashby & Schoon, 2012). The underlying assumption has been that adolescents from low socio-economic status (SES) backgrounds have uniformly low future aspirations, as illustrated by Sewell and Shah's (1968) statement "It is a sociological truism that children of higher social class origins are more likely to aspire to high educational and occupational goals than are children of lower social class origins" (p.559).

In recent years, social policy has sought to improve the educational outcomes of children from disadvantaged backgrounds by raising their aspirations, with the aim of increasing social mobility (Milburn, 2009; 2012). This has led to the implementation of a plethora of activities designed to raise aspiration in schools across the country. However, assumptions of a specific income effect are not fully supported by recent data. Adolescents from low-SES backgrounds often express high aspirations and appear to take work and education as seriously as children from other backgrounds (St Clair & Benjamin, 2011; Croll, 2008; Schneider & Stevenson, 1999). Despite mounting evidence to suggest that aspirations are high among disadvantaged populations of adolescents, there is still an assumption that more needs to be done in terms of raising aspirations to improve outcomes for these children (Thornton, Pickering, Peters, Leatherwood, Hollingworth & Mansaray, 2014). Dewitt, Archer, Osborne, Dillon, Willis and Wong (2010) describe recent governmental interventions aimed at raising aspirations in areas of high deprivation in the UK as "flawed" (p.21) and suggest that it is the surrounding context and conditions that need to be addressed.

Previous research argues that children adopt similar outlooks on the world to their friends, parents and neighbors and use this information to develop ideas of what to expect for themselves (Furlong, Biggart & Cartmel, 1996). While there is likely to be a contrast between aspirations and expectations, with students from economically disadvantaged backgrounds aspiring to achieve more than they actually *expect* to achieve (Boxer, Goldstein, DeLorenzo, Savoy & Mercado, 2011), it is our belief that focusing on income alone as a primary driver of aspirations could distract from other important individual differences within low-SES groups.

Many studies have reported gender differences in both educational and occupational aspirations in adolescents. Girls have been consistently found to have higher educational aspirations than boys (Rothon et al., 2011; Howard, Carlstrom, Katz, Chew, Ray, Laine et al., 2011; Feliciano & Rumbaut, 2005; Cassen & Kingdon, 2007). Occupational aspirations are thought to be influenced by both individual inequalities and the opportunities available to different social groups (Roberts, 1968). Research by Furlong et al. (1996) found that neighborhoods have an important impact on male occupational aspirations but that contextual effects have a weaker effect on females. Other research has shown that female aspirations tend to be restricted to occupations with strong feminine stereotypes (Kelly, 1989). We hypothesize that this study will highlight similar trends, with adolescent girls showing higher educational aspirations and lower occupational aspirations; although we would expect the findings for occupational aspirations to be less marked because our measure is fairly generalized.

The literature describing school-year effects on educational aspirations has yielded mixed results. One study showed a decline in expectations from 8th to 10th grade (Kao & Tienda, 1998), while others show an increase (Mau & Bikos, 2000; Schnieder, 1994). However, Strand and Winston (2008) found no significant differences in aspirations by year group in their UK sample. Given the similarities with Strand and Winston's population of adolescents,

we would expect our findings to show no significant differences in educational or occupational aspiration by age.

Work with US populations has reported that minority ethnic students tend to have higher aspirations than white students (Goyette & Xie, 1999; Kao & Tienda, 1998). Walsemann and Bell (2010) reported that black male students had higher predicted probabilities of high educational aspirations than white male students in certain schools and African American students have been found to report higher self-esteem than white students, but show, on average, lower academic achievement. Despite often having fewer resources to fall back on, non-white high school students were also more likely than white students to convert the resources they did have into consistently high expectations (Hanson, 1994).

Minority ethnic students and students from lower social-class backgrounds are less successful in converting high aspirations into high achievements (Alexander, Entwisle & Bedinger, 1994). They appear to experience increasing doubts that their efforts will be rewarded in ways equivalent to white students (van Laar, 2000). Members of some ethnic groups may anticipate barriers to future schooling and work such as: lack of financial support, availability of education/employment, family obligations, and discriminatory hiring practices (Ogbu, 1988; Jackson, Kacanski, Rust, & Beck, 2006; Lent, Brown, & Hackett, 2000).

Among UK groups of adolescents, the findings are similar. Strand and Winston (2008) found black African British, Asian Other and Pakistani British groups had significantly higher educational aspirations than their white British group, which had the lowest aspirations. Rothon et al.'s (2011) study found minority ethnic students were more likely to show a desire to do A-levels (the optional post-16 academic qualification in the UK), with Asian students twice as likely to state a desire to follow this path as their white peers (OR 2.18; $p<0.0001$). It is thought that positive perceptions of science within the home are an important contributor to

this finding. Much has been made of the "Asian effect" (p.3), describing the particularly high interest in science of Asian students in British schools, although the category of Asian may be misleading and hiding differences between ethnicities and actual achievement (Dewitt, Archer, Osborne, Dillon, Willis & Wong, 2010). Previous research suggests that minority groups who have been located for longest within an area of social deprivation often have the lowest aspirations and find it hardest to escape (McLeod, 1995). Glick and White (2004) found that first and second generation immigrants are more likely to complete secondary school and go on to post-secondary education. Recent findings indicate that the increase in Eastern European children into UK schools from 2004 has benefitted the existing school populations by raising standards (Geay, McNally & Telhaj, 2012). It is suggested they may have more "favorable characteristics" (p.1) than the existing population and highly educated parents who are strongly attached to the labor market. Rothon (2007) concluded that social class operates in a similar way for all ethnic groups, without a specifically "ethnic effect" (p.1) that mitigates its impact in certain groups. However, minority ethnic, working-class families may not enjoy the same levels of resource to fund and promote their children's achievement through extra-curricular activities (Archer & Francis, 2007), and may also experience less productive relationships with schools (Crozier & Reay, 2005). It is, therefore, important to recognize that within any individual ethnic group there may also be variation driven by gender, age, school, peer and family environments. We hypothesize that levels of educational and occupational aspiration will differ between ethnic groups. More specifically, in line with previous findings, we expect Asian adolescents to have higher relative academic aspirations and the white British population to have the lowest educational and occupational aspirations (being the ethnic group most likely to have been located in an area of deprivation for the longest).

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Another source of variation in aspirations is the nature of the whole-school environment, including perceptions of school and school-peer relations: Resnick, Bearman, Blum, Bauman, Harris, Jones, et al. (1997) highlight the importance of a psychological attachment to school and the positive influence this could have for adolescents. Forming close relationships with teachers and other members of the school community has been found to have a protective effect, often leading to higher educational aspiration and performance (Anderman, 2002; Goodenow, 1993; Crespo, Jose, Kielpikowski & Prior, 2013; Stewart, Stewart & Simons, 2007). Research from the USA reported that discussions with adolescents about future plans among parents and teachers were found to be strongly related to positive academic outcomes (Epstein & Sanders, 2002). Students who feel an affinity with their school and perceive a friendly school atmosphere may also be more likely to participate in learning on leaving compulsory education (Ireson & Hallam, 2005). Schools may also encourage educational aspirations even in the face of socio-economic disadvantage (Madarasova Geckova, Tavel, van Dijk, Abel & Reijneveld, 2010). We hypothesize, that in line with previous findings, positive perceptions of school will be associated with higher aspirations, generally, and, in particular, with aspirations regarding school and further education.

Within the school environment, peer relations in adolescence also have a strong influence on aspirations. Burgess and Umana-Aponte (2011) found that UK adolescents from disadvantaged families, with friends from high income families, had significantly higher educational expectations and aspirations than similar young people from low-income families without such friends. Kiuru, Salmela-Aro, Nurmi, Zettergren, Andersson and Bergman (2012) found that best friends' parental education was a predictor of adolescents' educational expectations and that adolescent best friends ended up pursuing similar education and careers in adulthood. Garg, Melanson and Levin (2007) found that having academically orientated peers was especially beneficial to adolescents from single-parent families.

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Findings relating to the influence of peers on adolescent aspirations have been mixed. While high-ability peers can have a positive impact, disaffected peers can have a significant negative impact on aspirations (Strand & Winston, 2008) and achievement (Blandon, 2006). Whereas Madarasova Geckova et al. (2010) found that social support from friends was not associated with educational aspirations. Friendships, group acceptance and group membership could all be involved in promoting academic competence (Wentzel & Caldwell, 1997); although this relationship is not clear cut and peer acceptance may be related to academic achievement more than friendships or group membership. Given these mixed findings, it is difficult to predict the outcome of peer relationships on adolescent aspirations. We hypothesize that a positive sense of acceptance among peers will be associated with an increase in academic and occupational aspirations.

Active parental involvement at home and attendance at school events appears to be a strong indicator of high further educational aspirations (Trusty, 1999; Dewitt et al., 2010). Parental aspirations for their child, as well as their view of the options actually available, influence parental support for education (Eccles & Harold, 1993). Parental academic involvement from parents with low levels of education themselves increases adolescents' educational and career aspirations (Hill, Castellino, Lansford, Nowlin, Dodge, Bates et al., 2011). Strand and Winston (2008) also found that low educational aspirations in the home were in part associated with the low aspirations of white British pupils in their sample. Rothon et al. (2011) report that adolescents encouraged to do well by their parents were more than twice as likely to aspire to remain in education post-16 (OD 2.38; p <0.0001). Madarasova Geckova et al. (2010) found that support from the father particularly was a consistent predictor of educational aspirations in adolescents. Glick and White (2004) reported that students were more likely to complete high school and continue into further education if their parents held high expectations for them. We hypothesize that, in line with previous findings, strong

parental support for education will be associated with both educational and occupational aspirations among our sample of adolescents.

Several studies have found evidence to suggest that depressive symptoms impact negatively on academic achievement (Fergusson & Woodward, 2002; Forsterling & Binser, 2002) and more recently, Rothon, Head, Clark, Klineberg, Cattell & Stansfeld (2009) found psychological distress to be negatively associated with educational achievement. We, therefore, hypothesize that adolescent aspirations will be negatively affected by lower levels of psychological wellbeing.

In summary, the recent literature indicates that, contrary to widely accepted public perception, future aspirations in low-income adolescents vary considerably and may be generally high. While level of income is often thought to be the critical factor in determining aspirations, the literature suggests that there are many other sources of variation in aspiration that may be more important in predicting outcomes. In a recent report from the Joseph Rowntree Foundation (2012), Stephen Gorard criticizes much of the research into the relationship between poverty and aspirations as small-scale and insufficiently robust, cautioning against the implementation of interventions in this area without solid evidence.

Current Study

As part of the baseline assessment for the Well London Study cluster randomized control trial (see Wall, Hayes, Moore, Petticrew, Clow, Schmidt et al., 2009; Phillips, Renton, Moore, Bottomley, Schmidt, Lais, et al., 2012), we were afforded the opportunity to examine the educational and occupational aspirations of a diverse sample of adolescents from some of the most deprived inner-city areas of the UK. We hypothesized that, overall, reported aspirations across the whole sample would be high but that there would be meaningful variation according to ethnicity, gender and school age; aspiration would be positively associated with

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the reported quality of social networks of school, family and peers; and this, in turn, would be associated with measures of psychological wellbeing.

Method

The data was collected as part of the baseline adolescent survey of the Well London Project between January 2008 and July 2009. The Well London Project which was delivered from Oct 2007 - March 2011 used an area-based community engagement model to target a range of interventions, delivered by multiple agencies, aimed at improving healthy eating, healthy physical activity and mental health outcomes. Full details of the design are provided in Wall et al. (2009) and are summarized here and in Phillips et al. (2012). The unit of intervention delivery and analysis for the trial is the UK census Lower Super Output Area (LSOA); these are groupings of five to ten streets created for calculation of local area statistics in the UK census. Nationally, the mean number of residents in an LSOA is 1,500 people, with 800 to 1,000 residential addresses; the mean population, at the 2001 census, of the LSOAs included in the Well London CRT is 1,700 (range, 1,373 to 3,312).

The Well London intervention was delivered in 20 LSOAs with 20 matched control LSOAs. To ensure that the intervention was delivered in the most deprived LSOAs in London and to ensure comparability between intervention and control LSOAs, the following selection process was used: (1) all 4,765 LSOAs in London were ranked by the English Indices of Multiple Deprivation (IMD) 2004 and the 20 London boroughs containing the most deprived 11% of LSOAs were identified; (2) within each of these 20 boroughs, the four most deprived LSOAs (based on the IMD) were identified; (3) local authorities and health professionals were asked to select two LSOAs, which were not geographically contiguous, from the four identified in their borough; and (4) random allocation was used to assign one of the LSOAs to the intervention and the other became the control site.

Data collection

Data collection took place between January 2008 and July 2009. The 11-16 year old participants all resided in one of the 40 LSOAs and were recruited and surveyed through local secondary schools. Schools were targeted on the basis of having 10 or more students from an LSOA, using information from the National Pupil Database (NPD, 2009). Parents were contacted by letter prior to surveying allowing them to withdraw consent before the surveying session. Surveying took place in 45 minute sessions, within school hours, and students completed the questionnaire independently under the supervision of a researcher in a classroom environment. Parents were given the opportunity to withdraw their child via an opt-out consent form beforehand and adolescents were asked for their consent on the day of the survey.

Sample

This study makes an important contribution to the literature on adolescent aspirations because of the unique nature of the data sample. The participants all came from a similarly low-SES environment and the breadth of data collected during the Well London Adolescent Survey has allowed us to analyze a large range of relevant variables. Recent studies of community samples of adolescents have been from relatively restricted geographical areas and from a small number of individual schools. In this study we targeted a large number of adolescents from areas of deprivation across London involving 68 different schools, providing a more representative picture of the aspirations of adolescents from low-SES areas of London. Our outcome measures also distinguished between school educational aspirations, higher educational aspirations, and occupational aspirations; this allowed us to acquire a broader understanding of adolescent aspirations than previous studies tending to focus on school examinations or aspirations to carry out a specific job.

Description of schools

We approached a total of 145 schools. Of these, only 10 schools refused to participate outright, 67 did not progress to data collection within the time-frame, and 68 proceeded to the point of data collection within the time period. The slow rate at which schools cooperated reflects the difficulties encountered by over-stretched teaching staff in prioritizing an external research project of limited direct benefit to their pupils. The study only selected a small number of pupils to work with from the school, so could not provide the school with useful whole class summary data.

The schools providing participants comprised of 38 community schools, 12 academies, 17 faith schools and 1 free school; of these, 17 were single-sex. Schools who either declined to participate or did not make it to the data collection stage in time included 44 community schools, 12 academies and 21 faith schools; of these, 24 were single-sex. All the schools involved in this study were state-funded (please note the term "Public School" in the UK refers to a category of private schools and does not indicate state funding.) The participating schools were not only the more highly rated schools. We recruited participants from schools that represented the full range of OFSTED (Office for Standards in Education, Children's Services and Skills) grading from inadequate (special measures) to outstanding: inadequate (4.5%), satisfactory (36.4%), good (37.9%), and outstanding (21.2%). Very few parents and children refused to take part. (We received 14 parental no-consent slips and 19 children did not want to participate on the day.) The majority of the children who did not participate were unavailable due to exams and other school activities, or were absent on the day. Although participants accessed the survey via their school, they were recruited at the LSOA (Lower Super Output Area) level. Some schools therefore had participants from only one LSOA and other schools provided participants from several different LSOAs. The final sample of 1,214

adolescents was evenly distributed by age, with a mean number of pupils per LSOA of 30.4.

All procedures were subject to ethical review by the University of East London's Ethics Review Committee.

Statistical analysis

As a result of the primary sampling unit for the study occurring at the neighborhood level, dummy LSOA variables were used to make adjustments for the clustered survey design in the analyses. Table 2 identifies the socio-demographic characteristics of aspirations and shows the multiple regression models containing predictors of interest and indicators for LSOAs. We were interested in the direct effects of the various factors on levels of aspiration and in Table 3 we use the socio-demographic data to adjust for family, school, peer and psychological variables and their association with each domain of aspiration. We assumed that data was missing at random so multiple imputation was used for all analyses to account for missing data, increase power and reduce potential response bias. We wished to make sure that those pupils who might be less likely to complete within the time period, would be represented in the data. Note that we also ran analysis on complete cases only (n = 922) and there were no meaningful differences in estimates obtained. The multiple imputation was carried out with the user-written *ice* commands in STATA v11.2. Clustering at the LSOA level was accounted for in the imputation model using an indicator variable, modelled as a fixed effect. Three boroughs were dropped from the final analysis as there were fewer than ten respondents in each of the six LSOAs.

Measures

Self-reported family economic status. To assess levels of family affluence, we used items from a reliable, self-report indicator: the Family Affluence Scale (FAS II; Currie, Elton, Todd, & Platt, 1997; 2004). The measure asks about universal aspects of affluence, specifically: whether adolescents have their own bedroom; how many times they have been on holiday in the last 12 months; if they have access to a computer; and if their family owns a car. These responses were coded using the standard codes except that ownership of a car or a van and a computer were coded simply as yes or no responses rather than scaled. A maximum score of 6 indicates greater affluence. Although internal consistency is not a prerequisite for formative indexes such as the FAS, FAS II can be used with confidence in aggregate analyses of data that focus on relationships between SES and adolescent health (Boyce, Torsheim, Currie and Zambon, 2005).

Educational and occupational aspirations. This construct includes measures of three domains of self-reported aspiration: school educational aspirations; higher education aspirations and occupational aspirations. Similar questions have previously been used in the Research with East London Adolescents: Community Health Survey (RELACHS: Stansfeld, Haines, Booy, Taylor, Viner & Head, 2003).

School educational aspirations. This measure asks about participants' educational aspirations at school using four questions relating to qualifications at lower (GCSE age 16) and higher (A-level age 18) levels. These included: "I want to be successful in my school work and achieve good qualifications"; "I expect to get good grades in my GCSEs"; "I see myself staying on at school or college"; and "I see myself studying to do A-levels". Participants are asked to respond to the individual questions using a 3-point scale of: not true (1), somewhat true (2) and certainly true (3). The mean level of response across the four

questions was used for analysis, with a maximum score of 3 indicating high aspiration in the domain. Internal consistency reliability analyses yielded a Cronbach's alpha of .60.

Higher educational aspirations. This measure asks about participants' educational aspirations beyond school with the question: "I see myself going to university". Participants are asked to respond to the question using a 3-point scale of: not true (1), somewhat true (2) and certainly true (3). A maximum score of 3 indicates a high level of aspiration in the domain.

Occupational aspirations. This measure asks participants about their future employment aspirations using two questions: "I think with my abilities I will find it easy to get a good job" and "I expect eventually to get a well-paid job". Participants are asked to respond to the individual questions using a 3-point scale of: not true (1), somewhat true (2) and certainly true (3). The mean level of response across the four questions was used for analysis, with a maximum score of 3 indicating high aspiration in the domain. Internal consistency reliability analyses yielded a Cronbach's alpha of .47.

School perception. This measure asks about feelings of safety and belonging at school. It uses four questions taken from the RELACHS study (Stansfeld et al*., 2003) which originated from Resnick's (1997) School Connectedness Scale. Sample items include: "I feel safe in my school"; "I feel I am part of this school"; "I am happy to be at this school"; and "I feel close to people at school". A fifth question normally included in Resnick's scale "Do your teachers care about you?" was left out to create a measure that was purely about the school. Relationships with teachers were covered in questions on school conduct. Participants are asked to respond using a 5-point scale ranging from strongly disagree (1) to strongly agree (5); with a maximum possible score of 20 indicating positive perceptions of school. Internal consistency reliability analyses yielded a Cronbach's alpha of .84.

School conduct. This measure examines the self-reported behavior of participants' at school using five questions taken from the CHIP-AE study (Riley, Green, Forrest, Starfield, Kang & Ensminger, 1998). Participants are asked to rate, how often in the last four weeks and on how many different days they have: "deliberately disobeyed teachers?"; "had trouble getting along with teachers?"; "had trouble concentrating or paying attention?"; "had trouble getting school work done?" and "stayed away from school on purpose?". Participants responded using a 5-point scale of the frequency within the last four weeks that the event had occurred, from, not once (1), on 1-3 days (2), on 4-6 days (3), on 7-14 days (4), to on 15-28 days (5). A maximum possible score of 25 indicates the highest possible score of poor conduct. Internal consistency reliability analyses yielded a Cronbach's alpha of .80.

School peer environment. This measure uses three questions from the RELACHS study (Stansfeld et al., 2003) and asks about the positive characteristics of school peers: "Other students accept me as I am"; "Most of the students in my classes are kind"; and "The students in my classes enjoy being together". Participants are asked to respond using a 5-point scale ranging from strongly disagree (1) to strongly agree (5); with a maximum possible score of 15 indicating a positive environment. Internal consistency reliability analyses yielded a Cronbach's alpha of .78.

Parental support for education. This measure uses three questions asking about parental involvement with school and were adapted from the RELACHS study (Stansfeld et al., 2003): "my parents take an interest in my school work"; "my parents are willing to come to the school and talk to teachers"; and "my parents talk to me often about the jobs I might get when I leave school". Participants are asked to respond using a 3-point scale ranging from not true (1), somewhat true (2) to certainly true (3); with a maximum score of 9 indicating high levels of support. Internal consistency reliability analyses yielded a Cronbach's alpha of .66.

Family, friends and social support. This construct measures support from family and friends as assessed by the Multidimensional Scale of Perceived Social Support (MSPSS: Zimet, Dahlem, Zimet, & Farley, 1988). This 12 item, standardized scale breaks down into three sub-scales of support from family, friends and a significant other. Participants are asked to respond to positive statements of social support using a 7-point scale ranging from disagree very strongly (1) to agree very strongly (7). For analysis, scores are classified into high, moderate and low levels of social support. Internal consistency reliability analyses yielded a Cronbach's alpha of .91 for the scale as a whole.

Psychological wellbeing. This construct was assessed using the self-report version of the Strengths and Difficulties Questionnaire (Goodman, 1997) to measure psychological distress. It is a well-validated measure having been used previously in studies of ethnically mixed samples of adolescents (RELACHS 2001). The SDQ is made up of five scales: emotional problems; conduct problems; hyperactivity; peer relationship problems; and pro-social behavior. Participants are asked to respond to 25 statements using a 3-point scale of: not true (1), somewhat true (2) and certainly true (3). The scores for each scale (with the exception of the pro-social scale) are added together to generate a total SDQ score. The higher this score, the higher the level of measured distress. Internal consistency reliability analyses yielded a Cronbach's alpha of .74.

Self-esteem. This construct was measured using the Rosenberg Self-Esteem Scale (RSE); a 10-item report measure of global self-esteem. Participants are asked to respond to ten statements related to overall feelings of self-worth or self-acceptance. The items are typically answered on a 4-point scale, but different point scales have been used effectively. The Well London Adolescent Survey used a 5-point scale ranging from strongly disagree (1), to strongly agree (5) to be consistent with the SWLS measure (see below) which was administered in the same part of the questionnaire. Extensive reliability and validity

information exists for the Rosenberg Self-Esteem Scale (Blascovich & Tomaka, 1991). Internal consistency reliability analyses yielded a Cronbach's alpha of .80.

Satisfaction with life. This construct was measured using the Satisfaction with Life Scale (SWLS); a short 5-item instrument designed to measure global cognitive judgments of satisfaction with one's life. Participants are asked to respond to statements using a 5-point scale from strongly agree (1), to strongly disagree (5); with a maximum possible score of 25 indicating a low level of satisfaction (Diener, Emmons, Larsem, Griffen, 1985). Internal consistency reliability analyses yielded a Cronbach's alpha of .76.

Results

The sample

The sample is described in Table 1. There was an even mix of boys and girls with girls making up 50.7% (637) of the population sampled. The sample was ethnically diverse. The largest group represented was Indian/Pakistani/Bangladeshi and Other Asian (24%), followed by: white British (22%), black African (21%), 'Other' (15%), black Caribbean (9%), and Mixed ethnicity (9%). The adolescents were all aged between 11 and 16 years.

Table 1

Socio-demographic characteristics and mean aspiration, school and family environment scores.

(*n*=1214)	Males (95% CI)	Females (95% CI)	Total (95% CI)
School year (%)			
7	0.29 (0.25, 0.34)	0.25 (0.20, 0.29)	0.27 (0.24, 0.30)
8	0.23 (0.20, 0.26)	0.26 (0.23, 0.30)	0.25 (0.22, 0.27)
9	0.20 (0.16, 0.24)	0.21 (0.16, 0.26)	0.21 (0.17, 0.24)
10	0.19 (0.15, 0.23)	0.16 (0.13, 0.20)	0.18 (0.15, 0.20)
11	0.08 (0.05, 0.12)	0.12 (0.08, 0.16)	0.10 (0.07, 0.13)
Ethnicity (%)			
White British	0.23 (0.15, 0.31)	0.22 (0.14, 0.31)	0.22 (0.14, 0.30)
Black African	0.20 (0.15, 0.26)	0.21 (0.14, 0.27)	0.21 (0.15, 0.26)
Black Caribbean/Black Other	0.08 (0.05, 0.11)	0.09 (0.06, 0.13)	0.09 (0.06, 0.12)
Indian/Pakistani/ Bangladeshi/Other Asian	0.25 (0.14, 0.36)	0.23 (0.13, 0.33)	0.24 (0.14, 0.34)
Mixed ethnicity	0.08 (0.06, 0.11)	0.10 (0.07, 0.13)	0.09 (0.07, 0.11)
Other	0.15 (0.11, 0.19)	0.15 (0.10, 0.20)	0.15 (0.11, 0.19)
Family economic status	2.45 (2.33, 2.57)	2.27 (2.14, 2.39)	2.36 (2.25, 2.46)
School education aspirations	2.40 (2.37, 2.44)	2.51 (2.48, 2.54)	2.46 (2.43, 2.48)
Higher education aspirations	2.45 (2.38, 2.51)	2.58 (2.52, 2.64)	2.51 (2.46, 2.57)
Occupational aspirations	2.58 (2.53, 2.62)	2.57 (2.54, 2.60)	2.57 (2.55, 2.60)
School conduct	4.23 (4.16, 4.30)	4.30 (4.22, 4.38)	4.27 (4.20, 4.33)
School perceptions	2.11 (1.99, 2.23)	2.03 (1.95, 2.11)	2.07 (1.99, 2.14)
School peer environment	2.03 (1.93, 2.14)	2.06 (1.98, 2.13)	2.05 (1.97, 2.12)
Parental support for education	2.45 (2.41, 2.50)	2.45 (2.41, 2.50)	2.45 (2.42, 2.49)
SDQ	12.49 (12.05, 12.93)	12.95 (12.53, 13.38)	12.73 (12.43, 13.02)
MSPSS	15.71 (15.37, 16.05)	16.78 (16.51, 17.05)	16.25 (16.04, 16.46)

Overall aspirations

As predicted by recent studies, the overall mean scores for all three domains of aspiration were high (Table 1). Out of a possible maximum score of 3, mean level of school educational aspiration, higher-educational aspirations and occupational aspirations were all high at around 2.5. To explore associations between socio-demographic characteristics and aspirations[1], we then undertook univariate analysis. Table 2 shows univariate coefficients for these associations.

Table 2

Univariate regression coefficients for the association of socio-demographic characteristics and aspirations.

(*n*=1214)	School education aspirations		Higher education aspirations		Occupational aspirations	
	Linear regression coefficient (95% CI)	Wald test *P* value	Linear regression coefficient (95% CI)	Wald test *P* value	Linear regression coefficient (95% CI)	Wald test *P* value
Gender						
Male						
Female	0.11 (0.06,0.15)	<0.001	0.12 (0.04,0.20)	0.0044	-0.01 (-0.07,0.05)	0.7357
School year (%)						
7						
8	-0.02 (-0.08,0.04)	0.0906	-0.02 (-0.13,0.09)	0.1047	-0.06 (-0.14,0.02)	0.3792
9	0.02 (-0.05,0.08)		-0.11 (-0.23,0.01)		-0.07 (-0.15,0.02)	
10	-0.04 (-0.11,0.03)		-0.11 (-0.24,0.01)		-0.01 (-0.09,0.08)	
11	0.08 (0.0,0.16)		0.04 (-0.11,0.19)		-0.05 (-0.15,0.05)	
Ethnicity (%)						
White British						
Black African	0.13 (0.05,0.20)	0.0179	0.53 (0.40,0.66)	<0.001	0.15 (0.06,0.24)	0.0065
Black Caribbean /Black Other	0.09 (-0.1,0.18)		0.36 (0.19,0.53)		0.08 (-0.03,0.20)	
Indian/Pakistani/Bangladeshi /	0.07 (0.0,0.15)		0.37 (0.24,0.50)		0.12 (0.02,0.21)	
Other Asian Mixed ethnicity	0.05 (-0.04,0.14) 0.10 (0.02,0.18)		0.27 (0.11,0.43) 0.43 (0.29,0.56)		0.07 (-0.04,0.18) 0.17 (0.08,0.26)	
Other						
Family economic status (mean score)	0.0 (-0.02,0.02)	0.8286	0.38 (0.01,0.07)	0.0184	0.01 (-0.01,0.03)	0.3651

Note[1]. CI = Confidence Interval. *n* = number of participants. SDQ = Strengths & Difficulties Questionnaire. MSPSS = Multidimensional Scale of Perceived Social Support. SE = Self-Esteem. SWLS = Satisfaction with Life Scale.

Note[2]. Data was multiply imputed.

We found no association of level of family affluence and level of aspiration for the questions on school qualifications and occupational aspirations. However, while aspirations were generally high, and despite the high levels of deprivation in the areas in which the adolescents lived, there was a significant association between level of family affluence (FAS score) and expectation of continuing on to higher education. There was also a significant difference in levels of aspiration comparing white British, low-SES adolescents with all other ethnicities, and this was the case across all three domains of aspiration. The beta coefficients were particularly large for higher education aspirations. White British students showed lower aspiration scores than other ethnicities and, consistent with previous reports, girls were significantly more likely to want to succeed at school than boys, and also to want to go to university. However, there was no corresponding indication of a difference in occupational aspirations between genders. Age (school year) was not found to be significantly associated with future aspirations. Thus we found that while the sample was from deprived areas and overall aspirations were high, there were still individual differences that were associated with level of family affluence, ethnicity, and gender; but the level of aspiration was not associated with the age of the adolescents.

Associations with school and family environment

Table 3 shows univariate and adjusted regression coefficients for the association of family and school environment and aspirations.

Table 3

Univariate and adjusted regression coefficients showing associations between each domain of aspiration and environmental and psychological factors.

(*n*=1214)	School education aspirations				Higher education aspirations				Occupational aspirations			
	Univariate		Adjusted		Univariate		Adjusted		Univariate		Adjusted	
	Regression coefficient (95% CI)	Wald test *P* value	Regression coefficient (95% CI)	Wald test *P* value	Regression coefficient (95% CI)	Wald test *P* value	Regression coefficient (95% CI)	Wald test *P* value	Regression coefficient (95% CI)	Wald test *P* value	Regression coefficient (95% CI)	Likelihood ratio *P* value
School conduct	0.08 (0.05,0.12)	<0.001	0.08 (0.05,0.12)	<0.001	0.15 (0.09,0.22)	<0.001	0.14 (0.08,0.20)	<0.001	0.13 (0.08,0.17)	<0.001	0.12 (0.08,0.17)	<0.001
MODEL	$F_{(1, 202.0)} = 22.00$		$F_{(1, 203.0)} = 22.81$		$F_{(1, 214.6)} = 21.55$		$F_{(1, 276.3)} = 24.51$		$F_{(1, 212.7)} = 33.32$		$F_{(1, 231.6)} = 34.86$	
School perceptions	-0.07 (-0.10, -0.44)	<0.001	-0.07 (-0.09, -0.04)	<0.001	-0.09 (-0.14, -0.04)	<0.001	-0.09 (-0.14, -0.42)	<0.001	-0.11 (-0.15, -0.08)	<0.001	-0.11 (-0.15, -0.08)	<0.001
MODEL	$F_{(1, 839.6)} = 26.62$		$F_{(1, 940.8)} = 28.43$		$F_{(1, 288.8)} = 13.37$		$F_{(1, 372.4)} = 13.39$		$F_{(1, 318.6)} = 43.04$		$F_{(1, 360.1)} = 43.82$	
School peer environment	-0.07 (-0.10, -0.04)	<0.001	-0.07 (-0.09, -0.04)	<0.001	-0.07 (-0.12, -0.02)	0.0101	-0.06 (-0.11, -0.01)	0.0294	-0.08 (-0.12, -0.05)	<0.001	-0.08 (-0.12, -0.04)	<0.001
MODEL	$F_{(1, 861.1)} = 22.79$		$F_{(1, 826.8)} = 24.87$		$F_{(1, 383.6)} = 4.78$		$F_{(1, 404.6)} = 6.67$		$F_{(1, 328.7)} = 19.43$		$F_{(1, 353.1)} = 21.50$	
Parental support for education	0.27 (0.23,0.32)	<0.001	0.27 (0.23,0.31)	<0.001	0.46 (0.38,0.54)	<0.001	0.44 (0.36,0.52)	<0.001	0.42 (0.37,0.47)	<0.001	0.42 (0.37,0.47)	<0.001

MODEL	$F_{(1,1000)} = 168.33$	$F_{(1,1000)} = 170.69$	$F_{(1, 480.9)} = 129.09$	$F_{(1, 888.1)} = 138.92$	$F_{(1, 476.4)} = 266.00$	$F_{(1, 612.2)} = 273.91$
SDQ	-0.01 <0.001 (-0.01, -0.01)	-0.01 <0.001 (-0.01, -0.01)	-0.02 <0.001 (-0.02, -0.01)	-0.01 <0.001 (-0.02, -0.01)	-0.02 <0.001 (-0.02, -0.01)	-0.02 <0.001 (-0.02, -0.01)
MODEL	$F_{(1,1000)} = 23.92$	$F_{(1, 1000)} = 21.94$	$F_{(1, 1000)} = 22.62$	$F_{(1, 1000)} = 14.53$	$F_{(1, 1000)} = 55.19$	$F_{(1, 1000)} = 47.82$
MSPSS	0.02 <0.001 (0.02,0.03)	0.02 <0.001 (0.02,0.03)	0.03 <0.001 (0.02,0.04)	0.03 <0.001 (0.02,0.04)	0.03 <0.001 (0.02,0.04)	0.03 <0.001 (0.03,0.04)
MODEL	$F_{(1, 1000)} = 61.88$	$F_{(1, 1000)} = 58.06$	$F_{(1, 1000)} = 25.44$	$F_{(1, 1000)} = 27.76$	$F_{(1, 1000)} = 67.73$	$F_{(1, 1000)} = 74.74$
Rosenberg SE	0.01 <0.001 (0.01,0.01)	0.01 <0.001 (0.01,0.02)	0.02 <0.001 (0.01,0.02)	0.01 <0.001 (0.01,0.02)	0.02 <0.001 (0.02,0.03)	0.02 <0.001 (0.02,0.03)
MODEL	$F_{(1, 1000)} = 48.13$	$F_{(1, 1000)} = 54.67$	$F_{(1, 1000)} = 26.37$	$F_{(1, 1000)} = 21.30$	$F_{(1, 1000)} = 128.59$	$F_{(1, 1000} = 115.86$
SWLS	0.01 <0.001 (0.01,0.02)	0.01 <0.001 (0.01,0.02)	0.02 <0.001 (0.01,0.03)	0.02 <0.001 (0.01,0.03)	0.03 <0.001 (0.02,0.03)	0.03 <0.001 (0.02,0.03)
MODEL	$F_{(1, 1000)} = 17.24$	$F_{(1, 1000)} = 21.79$	$F_{(1, 1000)} = 10.61$	$F_{(1, 1000)} = 10.43$	$F_{(1, 1000)} = 66.71$	$F_{(1,1000)} = 64.78$

Note[1]. CI = Confidence Interval. *n* = number of participants. SDQ = Strengths & Difficulties Questionnaire. MSPSS = Multidimensional Scale of Perceived Social Support. SE = Self-Esteem. SWLS = Satisfaction with Life Scale.

Note[2]. Multiply imputed data; adjusted estimates account for socio-demographic characteristics: age, gender, ethnicity, family affluence.

School perception was found to have a small but significant negative association with future aspirations across all three aspiration domains, while *School conduct* was found to be significantly positively associated with all three aspiration outcomes, with an increase in good conduct correlating with increased aspirations. *School conduct* had a larger effect when associated with both higher educational and occupational aspirations. *School peer environment* was also found to be significantly negatively associated with school educational and occupational aspirations. Thus, in this sample, the perceived school environment and school peer relations are associated with future aspirations. *Parental support for education* was found to be significantly associated with both educational and occupational aspirations and was the factor that showed the largest positive association across all three outcomes.

Associations with psychological wellbeing

An important concern for considering the long-term negative impact of deprivation is the relationship between wellbeing and future thinking and aspirations. While the effects were relatively small, we found that adolescent Self-Esteem and Satisfaction with Life scores were significantly positively associated with all three aspiration outcomes and that, correspondingly, SDQ score was significantly negatively associated across all three outcome measures, indicating that increased difficulties were associated with low aspiration scores. Of course, we cannot infer from this data the causal direction of this association.

Discussion

The aim of this study was to conduct a detailed investigation into a range of factors thought to influence the educational and occupational aspirations of adolescents from deprived areas of London. There has been an assumption in recent years that adolescents from low-SES backgrounds have correspondingly low aspirations for their future, but recent research indicates a more complex picture, highlighting a number of variables associated with adolescent aspiration (e.g., Furlong et al., 1996). This has led to calls for more robust research, on a larger scale, into the relationship between poverty and aspiration (Gorard, 2012). Our study addresses this need, by examining the future aspirations of a large population of low-SES adolescents from across inner-city London. Our findings also provide evidence that a range of variables, other than income, may affect levels of aspiration in low-SES adolescents.

The main finding from this study is that our sample of adolescents report high levels of aspiration (with mean scores around 2.5), across all three of our aspiration domains. This is in line with research by St Clair & Benjamin (2011) who also found that their sample of low-SES adolescents reported high aspirations and were concerned about finding a job. As predicted, our study also showed variation across ethnicities, gender, family, school and peer relationships. Where we shared questions with Rothon et al.'s (2011) study, our findings were similar to theirs. They found 56.7% of respondents answered *yes* to the question "I see myself doing A-levels". In our sample 62.5% answered certainly true (score of 3) to the same question with a further 28.4% saying somewhat true (score of 2). These results indicate that our population of low-SES adolescents have, not only high aspirations educationally; but also for their future employment.

The only domain in which reported levels of income, as indexed by family affluence, was significantly associated with levels of aspiration, was in the higher education domain "I see myself going to university". One interpretation of the effect of income on higher educational aspirations is that the poorest amongst our population perceived higher education to be prohibitively expensive. A recent report on adolescent aspirations from the Department of Education (Thornton et al., 2014) found financial worries to be the most commonly cited barrier to higher education among high-achieving, disadvantaged pupils. Previous research has suggested that economically disadvantaged students are more perceptive to the barriers they face to succeeding, in comparison with better-off students. Those who are helped and given detailed information regarding means-tested financial aid for college, report higher expected grades than students who are reminded instead, about the high cost of further education (Destin & Oyserman, 2009).

In terms of differences across ethnicities, we found that white British adolescents reported lower educational and occupational aspirations than other ethnic groups, while black African students reported the highest level of educational aspirations; confirming findings from previous studies (Walsemann & Bell, 2010; Hanson, 1994; Strand & Winston, 2008). Previous research in this area has also suggested that it is the ethnic population that has remained in the area of deprivation for longest that tends to find it harder to escape (McLeod 1995; Jackson et al., 2006). While immigrant populations may exhibit a protective culture of high aspiration initially, if they fail to break out of poverty, these aspirations appear to diminish for each successive generation that remains in the area (Glick et al., 2004). This would help to explain our findings, and why it is often the white British students from areas of high deprivation whose aspirations are lowest in the UK.

Our study found that girls reported higher aspirations than boys, in terms of both school and higher educational (although not occupational) outcomes. This finding supports previous research where girls have been found to have consistently higher educational aspirations than boys (Rothon et al., 2011; Howard et al., 2011; Feliciano & Rumbaut, 2005) and there is currently much discussion, particularly in the UK, about how to address problems of boys falling behind in their education (Cassen & Kingdon, 2007). Previous studies have indicated that girls tend to opt for jobs with a strong female identity. Dewitt et al. (2010) also found that girls were less likely to go into sciences as a career. Our questions on occupational aspirations were not detailed enough to determine whether previous findings regarding the more restricted occupational choices of girls were supported.

This study found that age (as defined by school year) appeared to have little impact on levels of aspiration. This supports work by Strand and Winston (2008) who found no significant differences by year group in their sample of adolescents from inner-city schools in the UK. The age of adolescents taking part in this study ranged from 11-16yrs which represents a period of significant developmental growth, as well as significant change in terms of academic focus. This is interesting in the context of our study because it suggests that for our population of adolescents there may be no "reality check" in the aspirations of older children as they approach academic milestones like GCSE examinations. However, these findings could also, in part, be a consequence of interventions to raise aspirations that are ongoing in many schools in the UK.

The variable that had by far the largest positive association with reported aspirations was that of parental support for education. This is well-documented in the literature as having a significant impact on children's aspirations and later achievements (Madarasova Geckova et al., 2010; Hill et al., 2004 and Glick et al., 2004). Parents can have a huge impact on their children's ability to succeed, although in some cases they may

not fully understand the necessary steps their children need to take to achieve their aspirations (Kirk et al., 2011). Given the strong support for this finding in the literature, we suggest that it may be worth targeting parental aspirations and expectations for their children at an earlier stage, with interventions aimed at raising achievement in adolescents from these areas.

An unexpected finding from this study was that school perception and school peer relationships were significant in their negative association with all aspiration outcomes. This contradicts work from the US and New Zealand which suggests that a greater connectedness with school and peers, has a positive effect on aspiration and achievement (Andermann, 2002; Goodenow, 1993; Crespo et al., 2013). Adolescents in US schools who perceive themselves to be good students are: committed to school, attached to teachers, and have high college aspirations (Stewart et al, 2007). This begs the question, what is it about state schools in the UK that is different? It has been acknowledged that, within many of these schools, there can be an "anti-education" ethos among peer groups, and particularly among boys it is seen as "not cool" to do well at school (Cassen & Kingdon, 2007, p.20). Findings from previous studies have indicated that contextual effects operate largely independently of individual level characteristics (Stewart et al., 2007) and it has been suggested that targeting communities would be more productive than focusing solely on individual level characteristics. Given that schools are communities themselves that can often be quite distinct from the community within which the adolescents live, we suggest a need to target interventions at both the school and community level. However, we stress again that our findings should be treated with caution given the limitations of the study.

As expected, mental wellbeing was found to be positively associated with all three aspiration outcomes although the effect was small. Mental wellbeing measures have previously been shown to affect aspiration and achievement in adolescents, particularly in the context of bullying

(Rothon et al., 2011). However, within the context of this study and our findings regarding perceptions of school and peer relationships, it is maybe surprising that adolescents with higher aspirations also have better mental wellbeing scores. Future research into this area might profit from looking more closely at the interaction between psychological wellbeing, school and peer environment, and levels of aspiration.

At the individual level there are also points to consider. Boxer et al. (2011) define aspirations as how much youth *want* to achieve; and expectations as how much they *think they will* achieve. In their sample of adolescents from the US, they highlighted a disconnect between high aspirations and low expectations in low-SES adolescents. Our questions are predominantly expectation orientated (although the findings are pertinent to the more "high profile" debate on raising aspirations) and found to be generally high across our low-SES sample. While Boxer suggests strategies are needed to improve expectation in their sample population, it would seem that in our UK sample, low expectations (like low aspirations) are not necessarily the problem.

Research by Oyserman & Markus (1990) indicates that a balanced self-schema involving both a hoped-for, high-achieving possible-self and a feared possible-self (of being unemployed with few prospects) is most effective in promoting a positive outcome. It is possible that our UK sample, with generally high aspirations and expectations for their future, may lack a realistic understanding of the consequences of under-achieving academically. Some may believe they can by-pass the traditional route and become successful regardless. This would also make sense within the context of our findings with regards to school and peer perceptions. If the adolescents in our sample who have the most positive perception of school are highly regarded and successful among their peers, they may lack both an appreciation of the actual academic effort required to achieve a similar level of success in their life beyond school; as well as a realistic understanding of the consequences of low

academic achievement for their future. This is supported by evidence from Thornton et al. (2014) who report that lack of motivation was cited by 13% of high-achieving, disadvantaged children.

A major strength of this study was our unique population of adolescents. They were identified for the original Well London Adolescent Survey on the basis of being from uniformly low-SES environments and, unlike previous studies, represent a large geographical area across inner-city London. While all the adolescents were from areas of high deprivation, each area is distinctive in its ethnic and cultural identity, leading to a very diverse population of participants. Another strength of this study was the data we were able to collect from the multiple domains of functioning measured, making it an important contribution to the literature on adolescent aspirations.

However, there were several limitations to the research in light of which the findings should be interpreted with caution. The data was collected specifically for the Well London Adolescent Survey and, while this undoubtedly contributed to the strength of the dataset, it also created the limitation that the survey tool was not designed with the present study in mind. The questionnaire relied on self-reported outcomes alone and we might have got different results if teachers and parents had contributed. The adolescents who took part in the survey were identified on the basis that they lived in specific areas of deprivation across the city. However, the adolescents involved may well travel outside of this area to go to school, particularly in the case of faith schools, and so become part of a school community with a different demographic representation. There was a diverse mix of schools represented but differences in school environment were not specifically addressed as part of this study.

Our findings should be treated with caution given the limitations mentioned above; but the results of this study suggest that, rather than prioritizing interventions aimed at raising aspirations that are already high, resources would be better spent developing strategies aimed at convincing under-achieving adolescents that academic success is an important contributor to personal success in their life beyond the school gates. Given that parents retain a strong influence beyond early childhood, and a quarter of schools still see lack of parental encouragement as a barrier (Thornton, 2014), another effective strategy may be to focus on parental attitudes towards education as an early intervention before their children reach adolescence. In line with previous findings suggesting that interventions at the community rather than individual level are needed to raise achievement in adolescents from these areas, we would also suggest a focus on school ethos. There appears to be little in the literature on school ethos and its possible effect on the aspirations of low-SES adolescents in the UK, and we feel that this could be a useful focus for future studies.

Conclusion

The main findings of this study support our hypothesis that adolescents from low-SES backgrounds have generally high educational and occupational aspirations, with variation across ethnicities and gender, family, school perception and peer relationships. More specifically, girls reported higher educational aspirations than boys; white British students reported lower educational and occupational aspirations than other ethnic groups; and black African children reported the highest educational aspirations. Perceived parental support for education had the largest positive association with aspirations. An unexpected finding was that aspirations were found to be negatively associated with perceptions of

school and school peer environment; and we discuss possible differences in ethos regarding the state school environment in the UK and elsewhere.

The findings from this study suggest that adolescents from areas of high deprivation in London have generally high aspirations for their future and that raising aspirations further may not be the most effective way to intervene to improve their educational and employment outcomes. We suggest, instead, a focus on intervention at the school community level in order to foster an ethos of high achievement among pupils, thereby encouraging adolescents to see their education as central to personal success in life beyond the school gates. Early intervention to help parents understand and navigate pathways into higher education is also key to helping adolescents from areas of high deprivation achieve their existing high aspirations and fulfill their potential for the future.

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