Can social networks improve job search behaviours among low-income youth in resource-limited settings? Evidence from South Africa

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ABSTRACT

Previous studies have established the importance of social networks in determining youth employment outcomes. The quality and quantity of social entities in social networks and effectively using them, have a positive influence on employment outcomes. However, limited evidence exists on the composition and role of social networks on youth employment in resource-limited countries. Our study addresses current evidence gaps by investigating the association of social networks and job search behaviours in a sample of South African youth who are neither in employment, education, or training (NEET). Our results indicate that the association of social networks with job search behaviours depends on the type of social network and job search behaviours. Having more people in youth's social network was associated with a higher likelihood of attending a job interview but no association with job applications' submission. Additional family members were positively associated with job interviews, as well. Age, gender, relationship status, geographic residence, formal postsecondary education, training experience, caregiver status, and mobile phone ownership were also associated with job search behaviours. Overall, our findings indicate that social networks, particularly family members, are more predictive of job interviews than job applications.

KEYWORDS

Youth employment; job search; job seeking; social networks; cross-sectional

1. Introduction

Previous studies have established the importance of quality information in determining youth employment outcomes (Chowa et al., 2020). The effective use of social networks during a job search is considered an essential facet of youth's employability (Mowbray et al., 2018). The individual's social network structure partially explains the informational role of formal or informal sources in employment outcomes. However, social networks' critical informational role extends beyond the simple diffusion of information about employment opportunities (Verduin et al., 2014; Chowa et al., 2020). Social networks are also determinants of early success in the labour market. Studies have found that social class, gender, and ethnicity are negatively associated with social capital.

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For instance, in a study examining the role of social cohesion and social capital (self-esteem, network cohesion, family support) in adolescent health, Almgren et al. (2009) found that boys in the 17–8 age range were much more likely to report themselves in excellent health than girls.

Job search has become an integral part of many young people's lives due to the high rates of youth unemployment across the globe. Job search consists of the sources used to acquire information about job vacancies and the intensity with which such information is pursued (Acikgoz, 2019). Job search behaviour has been defined by several scholars. Boswell (2006) posits that job search is the behaviour through which effort and time are expended to acquire information about labour market alternatives and generate employment opportunities. Other scholars suggest that job search behaviour refers to identifying job opportunities and gathering more detailed information on selected job alternatives (Barber et al., 1994;.Van Hoye et al., 2015; Lim et al., 2019). Furthermore, Kanfer et al. (2001) imply job search behaviour is a motivated and self-regulated process that begins with the identification of and commitment to pursuing an employment goal and activates search behaviour to bring about that goal. Many job search studies have operationalised job search behaviour in terms of effort and intensity, which refers to how hard one tries to find a job (Van Hoye et al., 2015). To find information on job opportunities and follow up on them, job seekers can apply various sources and behaviours (Van Hoye et al., 2015). Youth can consult job ads in newspapers, listings on job sites, or people they know working for the company.

Sequential models of the job search process distinguish between preparatory and active job search behaviours (Van Hoye et al., 2015). During the preparatory search phase, youth gather information about potential job leads through various sources such as job ads, job sites, and friends (Onyishi et al., 2015; Van Hoye et al., 2015). Studies have found that the relationship between preparatory and active job search behaviour is strong for job seekers with higher job search self-efficacy beliefs (Bao & Luo, 2015; Van Hoye et al., 2015). In the preparatory search phase, job seekers learn about job opportunities from formal or informal sources (Van Hoye et al., 2015). Formal job sources include public intermediaries, primarily recruitment mechanisms such as job ads, employment agencies, and placement offices.

On the other hand, informal sources include private intermediaries such as current or former employees, friends, relatives, or acquaintances (Van Hoye et al., 2015). Considerable empirical evidence suggests that job seekers are more likely to find employment and obtain higher-quality jobs through the use of informal job sources than through formal sources (Giulietti et al., 2011; Van Hoye et al., 2015). The realistic information hypothesis explains this strong relationship between informal job sources and positive employment outcomes. It posits that informal sources provide more accurate and specific information about what the job entails, allowing job seekers to submit better-prepared applications and the right fit.

Using networking or employing one's social networks to seek job opportunities has yielded positive employment outcomes (Van Hoye et al., 2009). However, research on networking suggests that its effects depend on the contacts' quality in the job seekers' social networks (Barbulescu, 2015). Youth often have limited occupational contact networks, and when these are present, they are limited to and structured by parents' social position. Research has also shown (Graham et al., 2015) that labour market recruitment relies heavily on informal networks; therefore, acquaintances play an essential role in

confirming the importance of social networks for young people's positive employment outcomes.

This study investigates social network effects on youth employment in a South African study. This study has two study objectives: (1) to investigate the association between social networks and job search and (2) to examine whether different social networks predict job search behaviours for youth.

1.1. Job search behaviour & social networks

Job search studies have operationalised job search behaviour in terms of effort or intensity, which essentially refers to how hard one tries to find a job (Van den Hee et al., 2020). Our study defines job search behaviour according to Kanfer et al. (2001), who claims job search behaviour is the product of a dynamic self-regulatory process that identifies an employment goal and the commitment to it. The employment goal then activates search behaviour to accomplish this goal. Accomplishing or abandoning the employment goal terminates the job search process and is associated with job search efforts and activities (Van Hoye et al., 2015). Measures of job search effort assess the amount of energy and time devoted to job search, and the measures of job search intensity assess the frequency engaged in a number of specific job search activities during a given period of time (Kanfer et al., 2001; Van Hoye et al., 2015).

Investing more time in concrete search behaviours, measured by job search intensity, is likely to produce more job interviews and offers, but obtaining employment is dependent on many other factors, some of which might be included only in measures of job search effort (e.g. proper planning, thorough preparation Van Hoye et al., 2015). In a meta-analysis, Kanfer et al. (2001) showed that job search effort was more strongly related to employment status, a more distal outcome. In contrast, job search intensity was a better predictor of job offers a more proximal job search outcome (Kanfer et al., 2001). Faberman et al. (2017) facilitated a study with1,300 employed and unemployed individuals in the US. The results suggest that the employed fare better than the non-employed in job search. For instance, the employed exerted lower effort but received more offers and were more likely to receive unsolicited offers (Faberman et al., 2017).

Ample scholarship examines how social networks influence job search behaviours (Giulietti et al. 2011; McDonald, 2011). Scholars have acknowledged social networks for decades. For instance, Haythornthwaite (1996) posits that a social network is a set of social entities, such as individuals or groups connected to exchange information or other resources. Social networks constitute the number of personal contacts through which people receive emotional supports, material assistance, and information (Sykes et al., 2009). A social network perspective focuses on relationships between these entities, represented by how members communicate (Neumeyer & Santos, 2018). Moreover, a social network perspective highlights the importance of the informal and interpersonal relations within social systems (Scott, 2000). Research has illustrated that people use social networks of friends, peers, parents, and teachers to obtain career information and job searching advice (Marmaros & Sacerdote, 2002). However, combining the formal and informal networks is said to yield more positive outcomes. In a study with job seekers of the China labour market, Xiong et al. (2017) found job seekers who used both formal and informal network channels reaped the largest benefits.

1.2. Social networks & youth employment

Concerning job search behaviours and youth, social networks have been considered in the literature. Generally, youth are surrounded by family members, peers, and other role models (i.e. *social influence agents*), and these social influence agents play an important role in youth's job search as they provide information flows about job openings (Granovetter, 1974). Youth who have social influence agents who are disconnected from employment or are unemployed have less information about job openings flowing to them and consequently have more extended job search periods. Those with more connected social influence agents have more information regarding job openings, and their job search periods are shorter. For example, in a qualitative study, Graham et al. (2015) explored factors that shape employment perspectives. Researchers conducted one-on-one interviews ($n = 36$) with four categories of young adults from a low-income community, including those: actively seeking employment, employed & frustrated, presently unemployed, and employed and satisfied. Through thematic analysis, the study's findings indicate that having access to social capital through employment opportunities, families, and neighbourhoods influences youth's perceptions of the labour market.

Calvo-Armengol and Jackson suggest that network effects influence unemployment and that information access is a crucial mechanism to improve employment. Through qualitative design, Hällsten et al. (2016) examined the relationship between social networks and unemployment risk among 19-year-olds of Yugoslavian, Iranian, or Swedish descent living in Sweden ($n = 1590$). Differentiating between occupational contact networks and unemployment within friendship networks, Hällsten et al. (2016) found that (1) the quality and quantity of occupational contact networks are negatively associated with own unemployment risk, and (2) the prevalence of unemployment in closer friendship networks was positively associated with own unemployment risk. Despite its popularity, reliance on social networks for job information and access to jobs is not always beneficial, nor does it help all job seekers in the same ways (Trimble & Kmec, 2011). Structural factors such as race and socioeconomic status influence the relationship between job search behaviours, social networks, and youth. In a study investigating network effects, Fernandez and Fernandez-Mateo found that racial minorities can be unconnected to job referrals and that minorities' peers do not transfer job referrals. In another study by Petersen et al., findings indicated that ethnic minorities were cut off from employer networks.

The harmful effect of long-term unemployment on the support network of young individuals is also a consideration. Bolíbar et al. (2019) found that youth with a low family socioeconomic status background, coupled with unemployed family members, reduces the presence of resourceful contacts, which was not the case for young people with a higher family socioeconomic status. Other systemic issues that influence job behaviour search and social networks with youth are gender (Trimble & Kmec, 2011) and immigration status (Livingston, 2006).

Pajic et al. (2018) examined 330 refugees from Syria in Greece and the Netherlands on job search self-efficacy. The study found that refugees with higher psychological capital had more confidence in job search behaviour due to their improved career adaptability. On the other hand, Fort et al. (2011) examined 100 participants to determine the relationship between job search self-efficacy, employment goals, job search planning,

job search behaviours, and effort allocated to job search. The study found that self-efficacy did not affect the clear vision of the participants' job search. Further, job search behaviour was not influenced by a clear participant goal.

Llinares-Insa et al. (2018) carried out two exploratory studies where one study examined 236 Spanish women on gender differences in the job search, and the other study investigated 235 Spanish women on the diversity of unemployed women. The studies showed that motivational attributes were not an influence in the job search behaviour, but gender was a factor. Kanfer et al. (2001) found that job search behaviour was related to positive employment outcomes and employment offers. Social factors such as age and education were related to employment status. These results suggested that young people and those with broader educational backgrounds had a better chance of being employed. Race was also a factor in employment outcomes. White people reported having a better chance of being employed than nonwhite people. Nonwhite people experienced longer unemployment durations.

Beaman employed data from the UK Quarterly Labour Force Survey (QLFS) to investigate job search techniques of different ethnic groups in the UK. Findings suggest that social networks in foreign-born and those who identify themselves as non-British, are not the most effective in gaining employment or achieving a job level. The study found that ethnic minorities who were less assimilated were more likely to use social networks (family and friends) in job search but less likely to find a job compared to Whites and those more assimilated ethnic groups.

Patacchini and Zenou (2012) employed data from the UK Labour Force Survey (LFS) to investigate the association between the residential proximity of 15,008 individuals from the same ethnic group and the likelihood of finding a job via social networks, relative to other search techniques. The study identified six ethnic groups: Black Africans (16.3%), Black Caribbean (15.0%), Indian (31.9), Bangladeshi (8.2%), and Chinese (7.9%). The study found positive associations between individuals' residential proximity from the same ethnic group and their likelihood of finding a job through social networks. The study found that the association was stronger r the closer the individuals are to the residential area and weaker as the residential area's distance increases. Moreover, ethnic minorities residing with large numbers of employed neighbours of the same ethnicity are more likely to have jobs than ethnic minorities residing in areas with fewer employed neighbours.

MacMillan et al. (2015) employed the data from the Destinations of Leavers from Higher Education (DLHE) and UK Higher Education Statistics Agency (HESA) to understand the association between family background, social networks and access higher status professions. Findings suggest that graduates who attended private schools were more likely to enter into high-status occupations than those who attended public school even though they are from similarly affluent families and neighbourhoods. Moreover, students who attended private schools and used social networks were more likely to enter into high-status professions than their peers who use other ways to obtain employment.

Xin (2017) employed a sample of 10,000 British households from the British Household Panel Survey (BHPS) to understand the effect of social interaction on employment status and employment quality. Findings suggest that individuals with higher or better social interaction levels were more likely to obtain full-employment status. The study

found that participants active in social organisations were more likely to be employed. The quality of employment was also associated with the social interactions of individuals.

In some cases, the relationship between the youth's connection to information flow and job search behaviour is influenced by using this information to acquire a job. Self-efficacy, self-confidence, resilience are some examples of how youth personal characteristics might influence job search behaviours regardless of whether there is a high level of information flow or not.

1.3. Relationship ties in social networks: types and intensity of youth's social relationships and job search influence

In social network analysis, tie strength is a critical concept representing a social relationship's nature, including content, direction, and intensity (Haythornthwaite, 1996). When two actors exchange resources, it forms a tie between them, which can be measured as either a weak or a strong relationship depending on the frequency, reciprocity, emotional intensity, and intimacy of that relationship (Granovetter, 1973; Retzer et al., 2012). For example, a higher frequency of contacts represents a stronger relationship (Granovetter, 1974; Lin et al., 1978). As one may expect, strong ties may be more helpful in job search behaviour as primary networks who are connected through strong ties are more motivated to help job seekers and relay more information about jobs than acquaintances (Marsden & Campbell, 2012). Job seekers may find jobs via strong ties more often because strong ties provide information that better meets the qualifications of job seekers (Cingano & Rosolia, 2012). However, even if job seekers have social ties to those who have valuable job information, the seekers will gain little information benefit when the ties do not actually transmit the information (Kim & Fernandez, 2017). Moreover, people connected via weak ties are less likely to actually share information about job opportunities than are people to whom the job seeker is strongly tied (Kim & Fernandez, 2017). Finally, it must also be noted that a paucity of scholarship examines the connection between tie strength, social relationships, and job search influence, specific to youth.

A case study by Gayen et al. (2019) examined the importance of social networks and the social capital embedded in them to secure employment if someone had become unemployed after the age of 50 years and to reveal the process of retrieving and organising that social capital. Findings suggest that participants who returned to the workforce had a higher proportion of networks with higher-income jobs, their job search techniques were based on interpersonal connections, and the rate of finding employment was based on the strength of their social ties. The stronger the ties an individual had, the more likely they are retrieving and organising social capital.

Kramarz & Skans (2014) employed data from the Institute for Evaluation of Labour Market and Education Policy (IFAU) to examine the impact of parental networks at the moment of entry on Sweden's labour market. Findings suggest that young workers were more likely to have their first stable jobs at the same company as their parents. The companies were more likely to employ young workers whose parents work at the company than individuals who have no family ties. Moreover, lower education, poor grades, and higher unemployment increase the importance of individuals' strong

social ties (Chowa et al., 2020). The study found that strong family ties are more important in young workers' job search process in weak positions than those weak ties.

Cappellari & Tatsiramos (2010) examined the importance of network effects in the labour market, exploiting close friends' information. The study aimed at identifying the effect of friends' employment on an individual's job search rates. The study found that every additionally employed friend increases the likelihood of finding a job by 13%. Moreover, having all friends employed compared to no employed friends leads to the most significant effects, which suggests competition among the social contacts. The authors suggested that the behaviour of contacts in the social network was more important than their characteristics and that friends' social networks were more vital than family networks.

A two-wave longitudinal design by Hoye et al. (2009) employed a sample of 1177 unemployed Flemish job seekers to investigate if job seekers' social network structure and composition determined their networking behaviour and moderated its association with job search and employment outcomes. Findings suggest that job seekers with a more extensive social network and stronger ties in their network spent more time networking beyond individual differences in extraversion and conscientiousness. Moreover, there was evidence that networking might be more effective for job seekers whose social network contains weaker and higher-status ties.

1.4. Social capital & social networks

Social capital is rooted in the notion that social networks provide a foundation for social cohesion and cooperation (Verduin et al., 2014). This definition is consistent with either individual or collective (i.e. community-based) approaches to social cohesion. Furthermore, social capital exists with homogenous groups (bonding) or heterogeneous (ethnicity, race, age, etc.) groups (bridging). In the Global South, social capital has been acknowledged primarily in health literature. For instance, in a systematic review of social capital in low and middle-income countries, Agampodi et al. (2015) claim that social capital (defined as trust, social cohesion, and sense of belonging) had a positive association towards measured health outcome in the majority of included studies. Social capital has also been associated with post-conflict recovery in sub-Saharan Africa. In a study assessing social capital and mental health in Rwanda post-genocide, Verdiun et al. (2014) found that community-based psychosocial group supports increased social capital and mental health for participants. There is a paucity of literature,that explores social capital in relation to youth employment in African contexts. While not expansive, this paper provides initial insight into this topic.

2. Materials and methods

2.1. Study design

This study used a cross-sectional design. We analyzed quantitative data from the baseline survey of youth employment and financial capability project in South Africa. The Institutional Review Boards in the project country and a public university in the southeastern United States approved the original study protocols. Research staff met with prospective

participants to explain the study. The information sheet and consent form were translated into local languages for non-English speaking persons (Masa et al., 2020). Recruitment was conducted at employment training sites. Informed consent was obtained from all individual participants included in the study. At data collection time, all participants in the South Africa project were 18 years old and older (Masa et al., 2020). This project was supported by the Ford Foundation, Jobs Fund South Africa, the National Youth Development Authority (NYDA) of South Africa, and the University of Johannesburg (U.J.). Research partners included the University of North Carolina at Chapel Hill and U.J.'s Centre for Social Development in Africa.

2.2. Study sample

Youth ($N = 1249$) were recruited from the project's eight implementing partners' training sites. Implementing partners included EOH, NYDA's YouthBuild, loveLife groundBREAKERS, Afrika Tikkun Training Services, Fit for Life Fit for Work, Raymond Ackerman Academy, Thabiso Skills Institute, and Harambee Youth Employment Accelerator. Graham et al. (2015) describe the implementing partners and inclusion criteria for selecting youth-focused organisations. Eligibility criteria for youth across implementing partners included age (18–25 years old), citizenship (must be a South African), and currently not in employment, education, or training (NEET). We recruited youth from 44 sites across the eight implementing partners. We used the programme enrollment list at each training site to select youth participants (Masa et al., 2020). Given the nature of the original study (Graham et al., 2015), the study sample was more likely to be NEET youth compared to the larger youth population in South Africa. While the number of youth selected per site differed due to variation in class sizes, the average number of NEET youth recruited and enrolled per site was 43, with a minimum of 9 and a maximum of 93.

2.3. Study setting

The study was conducted in all nine provinces of South Africa (Masa et al., 2020). Forty-six training sites located across South Africa were initially included in the study (Masa et al., 2020). However, two sites were excluded from the final recruitment and enrollment clusters due to ineligibility. The remaining 44 sites represented eight different organisations and, at the time of baseline data collection, their existing youth employment training sites. While the training sites were spread across all nine South African provinces, 34 of 44 sites were in urban areas. The remaining 10 sites were in rural locations.

2.4. Data collection and sources

Baseline data were collected using interviewer-administered questionnaires in 2015. The survey questionnaires included information on demographic, socioeconomic, educational, and financial characteristics of youth and their households. A pretest of the survey was conducted to ensure its reliability and validity with NEET youth in South Africa. In addition to expert- and respondent-driven pretests, we conducted cognitive interviews and individual briefing. The pretest results were included in the final survey

questionnaires to increase reliability and validity, including accuracy and consistency of understanding individual questions and selection of appropriate response options (Presser, 2004; Willis, 2020). Further detail about the project's pretesting process is described in Graham et al. (2015).

2.5. Measures

2.5.1. Social network

For the purposes of this study, we defined social network as the number of personal contacts through which youth receives emotional supports, material assistance, and information. Social network was measured using two variables: (a) the number of people that youth seek for advice and support when it comes to seeking employment, starting a business, or accessing educational opportunities; and (b) the number of people that youth seek for advice and support by type of relationship, i.e. family, household nonfamily members, friends, and acquaintances (Chowa et al., 2020).

2.5.2. Job-seeking behaviours

According to Kanfer et al. (2001) job search is typically viewed as a motivated and self-regulated process that begins with the identification of and commitment to pursuing an employment goal that then activates search behaviours to bring about that objective. We measured job-seeking behaviours using four variables: (a) whether youth applied for a job in the last three months (yes or no); (b) number of job applications in the last three months; (c) whether youth attended any job interviews in the last three months; and (d) the number of job interviews in the last three months (Chowa et al., 2020).

2.5.3. Covariates

We included socioeconomic variables that have been shown to influence job-seeking behaviours among youth in low- and middle-income countries. Covariates included age (in years), gender (male or female), race (Black or nonBlack), relationship status (single/not in a relationship or a relationship/ partnered/ married), child support grant recipient (no/do not know or yes), ever attended post-secondary education (yes or no), ever attended any other form of training or skills development programme (yes or no), caregiver for any children (yes or no), caregiver for any adult not living in the same household (yes or no); geographic residence (rural/very small town, small town, urban metro, or urban peripheral), and the number of mobile phones owned by youth (none, one, two, or more than two).

2.6. Analysis

We used multivariable generalised linear regression to analyze the association between social networks and job-seeking behaviours. The unit of analysis was the individual youth. Logistic regression was used for binary dependent outcomes, whereas negative binomial or Poisson regression was used for count data outcomes. We estimated eight multivariable generalised linear regression models, with two models for each of the four outcomes. Model 1 assessed the association of the number of people that youth sought for advice and support related to seeking employment, starting a business, or accessing

educational opportunities with whether youth applied for a job in the last three months. Model 2 examined the association of the number of people that youth sought for advice and support by type of relationship with whether youth applied for a job in the last three months. Model 3 assessed the association between the number of people that youth sought for advice and support related to seeking employment, starting a business, accessing educational opportunities, and the number of job applications submitted in the last three months. Model 4 examined the association between the number of people that youth sought for advice and support by type of relationship and the number of job applications submitted in the last three months. Model 5 assessed the association of the number of people that youth sought for advice and support related to seeking employment, starting a business, or accessing educational opportunities with whether the youth was interviewed for a job in the last three months. Model 6 examined the association of the number of people that youth sought for advice and support by type of relationship with whether the youth was interviewed for a job in the last three months. Model 7 assessed the association between the number of people that youth sought for advice and support related to seeking employment, starting a business, or accessing educational opportunities and the number of job interviews attended in the last three months. Model 8 examined the association between the number of people that youth sought for advice and support by type of relationship and the number of job interviews attended in the last three months. Statistical inference after generalised linear regression was based on cluster-robust standard errors due to the youth's clustered nature within training sites.

Diagnostic tests were conducted to validate whether our models meet relevant statistical assumptions (Hosmer & Lemeshow, 2000; Long & Freese, 2006). For logistic regression models, we performed a link test for model specification and goodness-of-fit test using the Hosmer-Lemeshow test. Model specification tests indicated that logit was the right link function to use across all four logistic models. Further, Hosmer-Lemeshow goodness-of-fit tests resulted in statistically nonsignificant p values ($p > 0.05$) for each logistic regression model, which indicated that our logistic models fit the data well. For negative binomial models, we performed test for overdispersion to determine whether Poisson or negative binomial regression should be used to analyze count data. For models 3 and 4, there was evidence of overdispersion in the response variable, i.e. number of job applications. Thus, we used negative binomial. For models 5 and 6, we used Poisson regression due to lack of overdispersion in the response variable, i.e. number of job interviews. Pearson chi-square statistic was not statistically significant ($p > 0.05$) for each Poisson model, indicating that our model fit the data well. All data analyses were conducted using Stata 16.

3. Results

3.1. Sample characteristics

Table 1 lists the sample characteristics. Eighty percent of youth applied for a job in the last three months ($n = 999$). Among those who applied for a job, 51% got a job interview. The study sample was 62% female, and 57% had previously participated in a training or skills development programme. The median number of job applications was four, whereas the median number of job interviews was two. On average, youth reported having between four to six people in their social networks. When classified by type of social networks,

60% of youth in the study reported having one to three family members in their social networks that they sought for advice and support related to seeking employment, starting a business, or accessing educational opportunities, whereas 7% did not have any family member whom they sought for advice and support. Sixty-two percent of youth reported having between one to three friends in their social networks that they sought advice and support, whereas 22% did not have any friends they sought for advice or support. A similar proportion (22%) of youth did not have nonfamily household members whom they sought for advice and support when it came to employment, starting a business, or accessing educational opportunities. Acquaintances were the least represented in youths' social networks, with 43% reporting not having any acquaintances whom they could seek for advice and support.

3.2. Social networks and job search behaviours

Table 2 lists the results of the multivariable association between social networks and job applications and interviews. First, the number of people in youths' social network was not significantly associated with the likelihood of applying for a job in the past three months (OR = 0.99). Additionally, the number of people in youths' social network was not significantly associated with the number of job applications submitted in the past three months (IRR = 0.97). Second, the number of people in youths' social networks was significantly associated with the likelihood of getting a job interview in the past three months (OR = 1.05, $p = .04$). For every one-person increase in youths' social network, the probability of getting a job interview in the past three months increased by 5%. However, the number of people in youths' social networks was not significantly associated with the number of job interviews in the past three months (IRR = 1.01).

3.3. Type of social networks and job search behaviours

Table 3 lists the results of the multivariable associations between diverse types of social networks and job search behaviours. First, the number of people in youths' social network by type of relationship was not significantly associated with the likelihood of applying for a job in the past three months. Although the relationship was non-significant, having more friends whom youth could seek for advice and support was associated with a higher likelihood of applying for a job in the past three months (OR = 1.15). The other types of relationship (family, household nonfamily members, and acquaintances) were associated with a lower likelihood of applying for a job in the past three months. Furthermore, the number of people in youths' social network by type of relationship was not significantly associated with the number of job applications submitted in the past three months. While the relationship demonstrated a statistical trend ($p = .09$), having more friends whom youth could seek for advice and support was negatively associated with the number of job applications submitted in the past three months (IRR = 0.91). For every additional person in youths' social network of friends, the expected number of job application decreased by 9%.

Second, although the number of people in youths' social network by type of relationship was not significantly associated with the likelihood of getting a job interview in the past three months, the direction of the correlation differed depending on the type of

Table 1. Sample characteristics and bivariable associations with social networks.

Variables	% or Mean (SD)	
Job search behaviours		
Job applications		
Applied for any jobs in the past 3 months		
No	20%	
Yes	80%	
Number of job applications in the past 3 months	0.44 (0.50)	
Job interviews		
Interviewed for any jobs in the past 3 months		
No	56%	
Yes	44%	
Number of job interviews in the past 3 months	1.65 (1.52)	
Social networks	4.54 (2.64)	
Social networks by type of relationship		
Family	1.48 (0.99)	
Household nonfamily members	1.16 (0.96)	
Friends	1.07 (0.90)	
Acquaintances	0.84 (0.96)	
Covariates		
Gender		−2.5%
Male[a]	38%	
Female	62%	
Age (in years)	23.24 (3.19)	−1.0%
Relationship status		6.3%
Single or not in a relationship[a]	79%	
In a relationship, married or partnered	21%	
Race		−12.8%
Non-Black[a]	5%	
Black	95%	
Received child support grant (ref = no/do not know)		5.0%
No/Do not Know[a]	75%	
Yes	25%	
Caregiver for any children		−0.1%
No[a]	63%	
Yes	37%	
Ever attended post-secondary education		5.4%
No[a]	55%	
Yes	45%	
Previously attended training or skills development programme		3.9%
No[a]	43%	
Yes	57%	
Geographic residence		
Rural are or very small town[a]	15%	
Urban metro	57%	4.1%
Urban peripheral	8%	15.5%
Small town	20%	10.9%
Caregiver for any adults		8.4%*
No[a]	77%	
Yes	23%	
Ownership of cellular phones		
None[a]	5%	
One	72%	5.7%
Two	17%	17.8%*
Three or more	6%	24.8%*

[a] = reference group.
% for categorical variables. *M* (SD) = mean (standard deviation) for continuous variables.
*$p < .05$.

relationship. Having more family members (OR = 1.12, $p = .09$) and friends (OR = 1.14, $p = .16$) were associated with a higher likelihood of getting a job interview in the past three months, whereas having more household nonfamily member (OR = 0.97) and

Table 2. Multivariable associations of social networks and job search behaviours.

	Job search behaviours							
	Job applications				Job interviews			
	Applied for any jobs (yes/no)		Number of job applications		Interviewed for any jobs (yes/no)		Number of job interviews	
Variables	O.R.	*p*	I.R.R.	*p*	O.R.	*p*	I.R.R.	*p*
Key explanatory variable								
Social networks	0.99	0.70	0.97	0.28	1.05	0.04	1.01	0.27
Covariates								
Gender (ref = male)	1.34	0.70	0.84	0.31	1.49	0.00	0.98	0.83
Age	1.16	0.00	1.07	0.02	0.99	0.61	1.04	0.06
Relationship status (ref = not in a relationship)	0.91	0.63	1.24	0.12	0.93	0.59	1.03	0.73
Race (ref = nonBlack)	1.21	0.50	1.05	0.89	0.85	0.53	1.05	0.72
Received child support grant (ref = no/do not know)	1.33	0.10	0.81	0.17	0.95	0.70	1.04	0.63
Caregiver for any children (ref = no)	0.85	0.35	1.35	0.06	0.87	0.34	1.14	0.11
Ever attended post-secondary education (ref = no)	2.39	0.00	1.49	0.00	1.63	0.00	1.06	0.39
Previously attended training or skills development programme (ref = no)	1.11	0.53	1.14	0.32	1.51	0.01	1.15	0.01
Geographic residence (ref = rural area or very small town)								
Urban metro	1.45	0.24	2.55	0.00	2.01	0.00	1.33	0.03
Urban peripheral	1.41	0.41	2.46	0.00	1.53	0.27	1.07	0.64
Small town	0.67	0.15	1.02	0.94	1.54	0.18	1.10	0.57
Caregiver for any adults (ref = no)	1.46	0.05	0.99	0.93	1.12	0.49	0.87	0.20
Ownership of cellular phones (ref = none)								
One	1.72	0.16	0.92	0.70	1.51	0.19	1.15	0.34
Two	1.40	0.38	0.98	0.94	1.22	0.55	1.32	0.14
Three or more	2.95	0.02	1.31	0.41	2.28	0.05	1.38	0.02

Note. O.R. = odds ratio, I.R.R. = incidence rate ratio. Results were based on two-tailed tests and clustered robust standard errors.

acquaintances (OR = 0.99) were marginally associated with a lower likelihood of getting a job interview. However, the number of family members in youths' social network was significantly associated with the number of job interviews in the past three months (IRR = 1.06, $p = .02$). For every additional family member in youths' social network, the expected number of job interviews increased by 6%.

Sensitivity models. When we limited the sample to youth who applied for a job in the past three months ($n = 999$), the number of people in the youths' social networks remained significantly associated with the likelihood of getting a job interview in the past three months (OR = 1.05, $p = .04$). Furthermore, having more family members in youths' social network was associated with a higher probability of being interviewed for a job in the past three months (OR = 1.1.7, $p = .05$). When we examined the association between social networks and the number of job interviews, the number of people in youths' social networks, regardless of type, was not significantly associated with the number of job interviews (IRR = 1.01). However, the number of family members in youths' social networks was significantly associated with the number of job interviews in the past three months (IRR = 1.05, $p = .04$). For every additional family member in youths' social network, the expected number of job interviews increased by 5%.

Table 3. Multivariable associations of social networks by type of relationship and job search behaviours.

	Job search behaviours							
	Job applications				Job interviews			
	Applied for any jobs (yes/no)		Number of job applications		Interviewed for any jobs (yes/no)		Number of job interviews	
Variables	O.R.	*p*	I.R.R.	*p*	O.R.	*p*	I.R.R.	*p*
Social networks by type								
Family	0.99	0.91	0.96	0.61	1.12	0.09	1.06	0.02
Friends	1.15	0.14	0.91	0.09	1.14	0.16	0.93	0.16
Household nonfamily members	0.86	0.10	1.02	0.77	0.97	0.65	1.06	0.12
Acquaintances	1.01	0.92	0.99	0.88	0.99	0.86	1.00	0.90
Covariates								
Gender (ref = male)	1.37	0.11	0.82	0.27	1.50	0.00	0.96	0.56
Age	1.17	0.00	1.07	0.02	0.99	0.65	1.03	0.06
Relationship status (ref = not in a relationship)	0.89	0.56	1.24	0.12	0.92	0.57	1.03	0.77
Race (ref = nonBlack)	1.21	0.53	1.05	0.88	0.85	0.55	1.09	0.55
Received child support grant (ref = no/do not know)	1.35	0.08	0.80	0.16	0.96	0.78	1.06	0.53
Caregiver for any children (ref = no)	0.86	0.38	1.36	0.06	0.88	0.39	1.13	0.12
Ever attended post-secondary education (ref = no)	2.36	0.00	1.51	0.00	1.63	0.00	1.06	0.40
Previously attended training or skills development programme (ref = no)	1.10	0.58	1.14	0.29	1.50	0.01	1.15	0.01
Geographic residence (ref = rural area or very small town)								
Urban metro	1.39	0.28	2.59	0.00	1.97	0.00	1.35	0.02
Urban peripheral	1.33	0.51	2.52	0.00	1.49	0.31	1.09	0.50
Small town	0.66	0.14	1.04	0.90	1.53	0.19	1.11	0.49
Caregiver for any adults (ref = no)	1.46	0.05	0.99	0.92	1.13	0.48	0.88	0.25
Ownership of cellular phones (ref = none)								
One	1.67	0.18	0.93	0.73	1.50	0.19	1.19	0.21
Two	1.34	0.44	0.98	0.98	1.22	0.54	1.37	0.09
Three or more	2.91	0.02	1.33	0.40	2.27	0.05	1.38	0.01

Note. O.R. = odds ratio, I.R.R. = incidence rate ratio. Results were based on two-tailed tests and clustered robust standard errors.

3.4. Other correlates of job search behaviour

While the associations between social network and job-seeking behaviours were heterogeneous, our results indicated several socioeconomic factors that were consistently associated with job-seeking behaviours. Being older, being female, having some form of post-secondary education, being a caregiver for an adult, living in an urban metropolitan area, having previously attended a training or skills development programme, and owning mobile phones were positively associated with job-seeking behaviours.

4. Discussion

The purpose of this study was to investigate the association of social networks with job search behaviours among South African youth. In particular, we investigated: (a) the association of social networks with job applications and job interviews; and (b) whether different types of social networks predict job applications and job interviews

among youth. Our results indicate that the association of social networks with job search behaviours depend on the types of social networks and job search behaviours. Social networks appear to be more positively associated with getting job interviews, compared to submitting job applications. We also found that having more family members, compared to friends, nonfamily household members, and acquaintances, were associated with getting one or more job interviews.

The social network perspective focuses on how relationships between the social entities within a network communicate. These social entities share information about jobs that are available and connect those in their networks to jobs that fit their skills profile. The findings in this study might indicate that the more of these relationships young people have, the more likely it is that they will get a job interview because of the information shared by those in the network and the job connections capacity of the network. Young people who are able to use these networks efficiently may obtain career information and job searching advice optimally, with a positive outcome of a job interview. However, this association may not only be a quantity issue, it may also be a quality issue. It may not necessarily mean that youth who have many people in their social network will have job interviews. This association might also be about the quality of these relationships. If the people in the network are employed and have employment connections themselves, the young person will be privy to a range of job opportunities. On the other hand, the young person might have many people in their network, but if these people are disconnected from the labour market, the job interview outcomes might not be the same for the young person in this network. Another issue to consider is the strength of the ties in the young person's network. The support, coaching and training a young person might receive from a strong tie relationship such as a parent, might not be the same as that from a neighbour. The significance of understanding this association lies in taking a holistic approach to considering all the other influences that come to bear. As discussed these include quality and strength of the relationship, but also the correlates of job search including socioeconomic status, employment status, and the geolocation of the social entities in the young person's social network.

With regard to the types of relationships in the social network, having more family members were associated with a higher likelihood of getting a job interview in the past three months and the number of job interviews in the past three months. As discussed earlier, the strength of the relationship ties may explain this positive relationship. The investment in terms of resources (time and finances), advice, connections, and mentoring that a family member makes in the young person might not be the same as a nonfamily member, a friend, or an acquaintance. The difference between the types of the relationship and the likelihood of the young person getting a job makes sense due to the differences in the investments discussed. However, these could be moderated by socioeconomic status, geolocation, and employment status.

Since the findings in this study demonstrate the relevance of the quantity and quality of social networks to job interviews, we present policy and programme implications. Youth who do not have strong social network ties that allow them to know of and secure job interviews are at a disadvantage. Often, these youth come from disadvantaged backgrounds. Policies that would ensure enhanced opportunities for disadvantaged youth to attend job interviews would increase the chances of youth having access to job interviews. These policies might require that companies seek youth in youth

employment training programmes and interview them in the programmes before they graduate, therefore, ensuring that youth who do not have access to robust social networks can still interact with potential employees. On the other hand a programmatic strategy might be for training programmes to focus on placement programmes where youth are placed with potential employers and youth can demonstrate their skills as they do internships. For disadvantaged youth, this might be a way to pair youth with potential employers and lift the burden of youth trying to find out which jobs are available, particularly those who do not have the social networks that may provide such opportunities.

Although the findings in this study did not indicate a statistically significant association between the number of people in youth's social networks and the likelihood of applying for a job in the past three months, having more friends whom youth could seek advice from and support was associated with a higher likelihood of applying for a job. Previous research has shown that youth social influence agents play an important role in youth's job search behaviours. It is possible that youth in South Africa who are surrounded by more friends might be getting some positive influence from their friends to be on the job market applying for jobs. It seems that youth who have more friends in their networks seem to be engaging more in identifying, committing and pursuing employment.

In addition, the number of people in youths' social network was not significantly associated with the number of job applications submitted in the past three months. However, the relationship demonstrated a statistical trend indicating that having more friends whom youth could seek for advice and support was negatively associated with the number of job applications submitted in the past three months. For every additional person in youths' social network of friends, the expected number of job application decreased by 9%. In this study, we did not investigate the influence friends have on a young person's labour market engagement if those friends were themselves unemployed. Previous research shows that the prevalence of unemployment in closer friendship networks was positively associated with own unemployment risk (Hällsten et al., 2016). Although this study does not investigate the nuances of the employment status of the young person's friends, perhaps youth who had many friends who were themselves unemployed had a negative influence on the job seeking behaviour of youth in the study.

The youth characteristics that were statistically significant included age and post-secondary education or training. It is likely that youth who were more mature were more motivated to get employed due to a more sophisticated understanding of the benefits of employment, as well as the urgency to become more independent and contributing citizens of the society; with maturity comes more responsibility. There might also be some tenacity that comes with aging due to a more mature understanding that one needs to apply themselves more to get the desired outcomes in life, which includes getting a job. With that realisation, more mature youth might have a different approach to challenges during the job search and employ different tactics to achieve their employment goals, including sending out more job applications, seeking out more information about vacancies, using different platforms to access information. Post-secondary education or training on the other hand, means that the young person has more skills to demonstrate their competencies for the job. They also may have a better 'fit' for a variety of jobs.

Studies have indicated that race or ethnicity is a factor in the association between social networks and job search (Kanfer et al., 2001), with white people reporting having a better chance of being employed than nonwhite people and nonwhite people experiencing longer unemployment durations. In this study, race was not a factor and this may be due to the lack of variability in the study sample, as 95% of the sample were black. The differences due to race if there were present could not be detected due to the small number of non-black numbers in the sample.

4.1. Limitations

Study results should be interpreted in the context of the following limitations. First, our data was cross-sectional, which provides weak evidence of causal relationship. Lack of temporal order does not eliminate reverse causality and may alter true direction of relationship. Second, our social network data were limited to the number of individuals that youth sought for employment and employment-related advice. The data did not include information about the strength of connection and quality or flow information from social networks to youth, which could further contextualise our results. We were not able to examine whether quantity or quality of social networks matter for NEET youth in South Africa. While we asked youth about their social networks by type of relationship, our list (family, friends, nonfamily household members, and acquaintances) was limited and might have omitted other important critical social networks such as teachers, mentors, and the role of social media. Third, our conceptualisation and review of the literature on social capital and social networks were based on a Western definition. For example, a conceptualisation of social networks that consider other influential groups of individuals that South African youth seek advice from for employment, education and entrepreneurship are likely to be broader than our study's four categories (family, friends, nonfamily household members, and acquaintances). Future research should address these limitations to better understand the relationship between social networks and youth employment outcomes in low- and middle-income countries. Future research should also use qualitative methods to expand our understanding of information flow between youth and their social networks and, in turn, how youth use the shared information to achieve their employment and related goals.

5. Conclusions

Social networks including the type and number of relationships youth have is important for their job seeking behaviour. Findings in this study show some positive trends that having more friends whom youth could seek advice from and support was associated with a higher likelihood of applying for a job, was negatively associated with the number of job applications and was significantly associated with the likelihood of getting a job interview. In addition, having more family members and friends was associated with a higher likelihood of getting a job interview in the past three months, whereas having more household nonfamily member and acquaintances was marginally associated with a lower likelihood of getting a job interview. Due to the prolonged periods of times that youth are on the labour market, increasing sources of job information for youth that are not only reliant on social networks might be an optimal intervention to improve job

search behaviours. In resource-limited settings, anchoring these interventions in non-internet reliant mechanisms might be a great way of including those who are marginalised due to lack of access to internet and other centres and mechanisms offering job information. Youth identify family and neighbourhood as determinants of their perceptions of labour market attachment; therefore, it is essential to bridge the social networks that youth have in their current contexts and realities, with the possibilities outside their circles and contexts to increase their employment chances. This can be done by increasing the quantity and quality of occupational contact networks (Chowa et al., 2020).

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Data availability statement

The data that support the findings of this study are available on request from the authors. The data are not currently publicly available. GSDI and our partners at the Centre for Social Development in Africa at the University of Johannesburg are preparing the collected data for release.

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