

Women in Mining: An Assessment of Workplace Relations Struggles

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ABSTRACT In 1994, the newly elected democratic government of South Africa adopted a number of strategies to open up the mining sector to historically disadvantaged South Africans which include women, as part of its economic empowerment policy. Although well intended, the integration of women into the traditionally male-dominated workforce created many challenges. The main objective of the study on which this paper was based was to critically analyse workplace relations struggles, accompanying the deployment of women in the core business of the mining sector. Quantitative and qualitative research paradigms were used. The research revealed numerous workplace relations challenges including, among others, acceptance by male co-workers, inequality issues, discrimination and sexual harassment. The paper concludes by making recommendations that can be implemented and used by employers, employee relations practitioners and labour experts to create a work environment free from conflict and conducive to constructive and harmonious workplace relations.

INTRODUCTION

Mining (in the formal mining sector) as an occupation in South Africa was traditionally reserved for men only and mining law prohibited women from being employed in operations underground. Furthermore, women were constrained by tradition which prevented them from working in surface mines or in surface occupations.

In 1994, the newly elected democratic government of South Africa adopted a number of strategies to open up the mining sector to historically disadvantaged South Africans (HDSAs), which include women, as part of its economic empowerment policy. The Constitution of the Republic of South Africa (RSA 1996) was implemented and laid the foundation for a democratic society. Furthermore, a comprehensive reformation of the South African labour policy took place. Various acts were introduced and amended to further transform the total labour industry, including the mining sector. In addition, various codes of good practice were initiated to guide employers, employees and trade unions to implement the key principles of the Employment Equity Act (RSA 1998). Some of these codes include the Code of Good Practice for the Basic Conditions of Employment and Pregnancy, the Code of Good Practice on the Handling of Sexual Harassment Cases and the Code of Good Practice on the Arrangement of Working Time.

New mining legislation was also introduced and not only prohibits the exclusion of women, but also requires from companies to actively change the demographic profile of the company and to ensure that they have plans in place to achieve the targets set by the Broad-based Socio-economic Empowerment Charter for the South African Mining Industry (the Mining Charter). The Mine Health and Safety Act (No. 29 of 1996) removed restrictions prohibiting women to work on mines, including underground (Ranchod 2001). The Mineral and Petroleum Resources Development Act (No. 28 of 2002) and the Mining Charter were introduced to further redress the imbalances from the past and to promote women's employment in the mining industry. According to the Charter, the mining industry was supposed to reach a quota of 10 percent women in core mining activities by 2009 (RSA 2004). 'Women employed in core mining activities' implies that women should hold positions equivalent to that of men, in other words, fill positions in mining that include, among other activities, mining, metallurgy, engineering and geology (Harmony Gold Mining Company 2008). In addition, the new Mining Charter was amended (the Amendment of the Broad-based Socio-economic Empowerment Charter for the South African Mining and Minerals Industry) and launched in September 2010. The amendment aims to further promote women's participation in the mining industry and provides set targets for HDSA participation, which

should be reached by March 2015 (RSA 2010a). Although well intended, the successful integration of women into the traditional male-dominated workforce of the mining industry created and still creates challenges for employers, managers, male co-workers and the women themselves.

Research Objectives

The purpose of the paper is, firstly, to provide a contextualisation of the complexities that accompany the integration of women working in core mining activities; secondly, to determine workplace relations struggles; and thirdly, to provide some recommendations to address the determined issues so as to create a work environment, free from conflict and conducive to constructive and harmonious workplace relations and by so doing contribute to the sustainable deployment of women in the mining industry.

A Contextualisation of Women Working in Core Mining Activities

Although women all over the world have been involved in mining activities for centuries, mining has been considered a very masculine industry due to its heavily male-dominated workforce as well as the physicality of mining work. The heavy manual character of mine work together with the dirt and risk associated with mine work make the male miner the typical labourer (Lahiri-Dutt and Macintyre 2006). Globally, the formal mining sector is predominantly male, and women were barred from working in mines by law and through tradition. In South Africa, until the 1990s, mining law prohibited women from working underground, and tradition prevented women from working in surface mines or in surface occupations (Hermanus 2007).

The way the mining industry was socially organised imposed unequal and social relationships on women and men and led to the subordination of the position of women, both within the mining industry and within the communities outside it (Lahiri-Dutt and Macintyre 2006). In South Africa, the historical, gendered roles played by women and men in the mining industry were quite traditional. Men were breadwinners and entered the public sphere (the mine workplace), while women were responsible for maintaining the family and therefore remained in the domestic sphere (the home) (Ranchod 2001).

Women also missed out on the potential benefits gained from the mining industry and income was largely captured by men. Traditionally, only two areas of the industry were open to women. Firstly, they were mainly employed in administrative and supportive positions and secondly, they acted as prostitutes in brothels that sprang up next to mining camps (Singer 2002). The environmental and social impacts of mining also tended to fall upon women through the loss of productive agricultural land, marginalisation and an increase in health risks, including HIV/Aids (IFC-Lonmin 2009).

Historically, the mining industry has been seen as a homogeneous masculine occupational culture that favoured men and did not accommodate women. A mindset exists that mining is not an occupation for women (IFC-Lonmin 2009). Previously, women employed at the mines were doing jobs that were traditionally viewed as women's work, such as clerical, secretarial, catering, adult education, human resource, nursing and other health work (Ranchod 2001). According to Moyo (2010), the patriarchal culture, values and attitudes led to mining being viewed as unsuitable for women and women as subordinate to men. Moreover, mining-related jobs were perceived as extremely physical, accompanied by a noisy, dirty and harmful environment, and were known as 'men's jobs'. Traditionally, men were seen as 'strong and capable' and women as 'powerless and problematic' (Benya 2009). Women were rarely employed in 'core positions' and were considered unfit for the hard labour of working in the mines (Badenhorst 2009).

When women first entered the mining industry, they encountered opposition from some male employees, were exposed to crude jokes and harassment, and struggled to be accepted by their male colleagues (Women in Mining Canada 2010). In South Africa, this problem was reinforced by the requirements of the Mining Charter, which intended to help women by enforcing the 10 percent female representation target, but in actual fact hindered them. Women who were employed on the mines *pre-Charter* were assumed to have been appointed on merit and so were treated with respect. Women who are employed on the mines *under the Charter* run the risk of being seen as 'quotas' and are therefore not being taken seriously. They therefore have to prove themselves from scratch and must do so in order not to let down the women who come

after them (Reichardt, cited in Campbell 2007). Furthermore, women joining the industry often do not have sufficient knowledge of the industry or their workplace and are frequently placed in inappropriate positions, setting them up for failure (AngloGold Ashanti 2005). Their male counterparts have a resistance to women being 'pushed' into workplaces, and do not see or hear of many successes, but rather focus on their 'failures'.

Women entering the workplace are also often caught in a 'double bind', as they have to do two jobs at once. Women coming from work have to do a 'second shift' at home where they take care of the home and the emotional, physical and psychological needs of their families (Pope-noe et al. 1998). This implies that they have to balance challenges at work, often physical hard work, with their daily responsibilities of running their households as well as taking care of the children. In general, female miners tend to work longer hours than men because of their added informal responsibilities at home. The shifts worked by mine workers imply, among others, that women work long hours and miss out on an important part of their families' lives, and in particular their children's lives. This places tremendous pressure on female workers and, in this case, the female miner (Botha 2013). Although literature suggests that traditional family patterns are being renegotiated when women enter paid work, women continue to take responsibility for the care of the home (Giddens 2013). This view is also confirmed by the findings of the World Development Report 2012 (World Bank 2012) which indicated that, globally, women tend to spend more hours per day on care and housework than men.

Although under-represented in the mining sector, it is evident from recent research conducted in Canada, South Africa and the United Kingdom that there has been a noticeable improvement in gender diversity in mining workforces (Women in Mining Canada 2010; WiMSA 2015; Women in Mining (UK) 2015). However, it is also evident from recent research conducted that women still face a multitude of obstacles in the sector including, among others, a male-dominated culture, discrimination, resistance by male workers, sexual abuse and harassment, inappropriate personal protective equipment, shift work, inadequate infrastructure facilities (ablution facilities and change hous-

es), isolation, physical incapability and a lack of clear and transparent development opportunities (Badenhorst 2009; Benya 2009; Women in Mining Canada 2010; MTS 2011; Australian Human Rights Commission 2013; Botha 2013; Scheepers 2013; The Guild 2014; WiMSA 2014; WiMSA 2015; Women in Mining (UK) 2015). It is clear that women across the globe experience more or less the same challenges in the sector. There is still a long way to go to successfully and sustainably ensure women's participation in the industry.

RESEARCH METHODOLOGY

Research Approach

The research methodology for this study stemmed from both positivism and phenomenology. A mixed-method research design was employed, applying a quantitative and qualitative research approach.

Empirical Context

Research Setting

The research setting was limited to the following three mines: a copper mine (underground), a platinum mine (underground) and a phosphate mine (open-cast). Convenient sampling was used to select the mines.

Sampling

For the purpose of quantitative research, the study population consisted of an availability sample of management as well as male and female employees working in core mining activities of the three mines. In total, 156 responses were received: 68 from the copper mine, 38 from the platinum mine and 50 from the phosphate mine.

For the qualitative research, purposive or judgemental sampling was used to select participants. In total, 12 individual interviews and 19 group interviews (69 participants) were conducted. The participants selected varied from various categories of employment and mining disciplines.

Measuring Instruments

A structured questionnaire was used to collect quantitative data. Indicator statements (see Table 2) were identified by means of a thorough

literature study to determine the perceptions of workplace relations within the mining companies included in the study. Individual and group interviews were conducted to collect qualitative data. Both the individual interviews and the group interviews were semi-structured. An interview guide, containing questions regarding work-related issues (gender-based discrimination, sexual harassment, inequality issues, complaints-handling procedures, support systems for women in mining, etc.), was utilised. Data collected were audio and video recorded and written notes were taken.

The researcher attended two Women in Mining conferences. The conferences emphasised and outlined barriers and challenges facing the mining industry in respect of successfully bringing women into the mining sector. Both conferences were concluded with an interactive workshop. The researcher took detailed notes during the conferences.

The qualitative approach supported the quantitative approach and aimed to provide more reliable results. According to Sarantakos (2013), mix-method research enriches the quality of findings and their validity, generalisability and popularity. The researcher could gain insightful understanding of the variables that have an impact on women in the mining sector.

Research Process

The researcher formally requested permission from mine management to conduct research at the three mining companies. After permission was granted, a formal appointment was scheduled with mine management to explain the nature and extent of the research. In each research setting (mines), the human resource officer targeted with women in mining was allocated to the researcher to provide the necessary assistance and support during the research, which included the following: distributing and collecting the quantitative questionnaires, selecting appropriate participants for the individual and the group interviews, scheduling interviews and organising the underground field trip as well as visits to surface mining operations. Most of the individual and group interviews were scheduled between shifts in order not to interfere with the work responsibilities of the participants. The following ethical considerations were taken into account while conducting the research: voluntary participation, informed consent, privacy,

anonymity and confidentiality (Babbie and Mouton 2011).

Data Analysis

Quantitative data obtained through the questionnaires were analysed with the support and assistance of the Statistic Consultation Service of North-West University. The statistical software program SPSS 21.0 for Windows was used to analyse the data. Qualitative data obtained through the individual and group interviews and observations were analysed by means of conceptual (thematic) analysis.

Reporting

Firstly, a factor analysis was conducted to explore the factorial structure of the section, and these findings are reported and discussed. Secondly, effect sizes were measured and interpreted, and these are also reported. Because an availability sample was used, p-values were not relevant and differences between means were examined for practical significance with effect sizes. The means can be interpreted as follows: Ratings of 2 and below indicate that the majority of the research participants disagreed to strongly disagreed with the indicator statement, while ratings of above 2 indicate that the majority of the research participants agreed to strongly agreed with the indicator statement (the maximum in terms of responses for every statement would be 4). Lastly, the findings of the qualitative inquiry are reported.

FINDINGS

Quantitative Results

Factor Analysis

A factor analysis was conducted on the 13 statements listed in the questionnaire. The results of the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Bartlett's test of sphericity are presented in Table 1.

Table 1: KMO and Bartlett's test of sphericity

<i>KMO and Bartlett's test of sphericity</i>		<i>Value</i>
KMO		0.748
P-value of Bartlett's test of sphericity	Approx. chi-sq	534.028
	df	78
	Sig.	0.000

Source: Botha 2013

The KMO measured 0.748 and indicates that the sample size is adequate for factor analysis. The p-value of Bartlett's test of sphericity returned a value smaller than 0.05, suggesting that the correlation between statements is sufficient for factor analysis (Field 2005). The results for the factor analysis are reported in Table 2.

Four factors were extracted by Kaiser's criteria (Field 2005) that explain 67.86 percent of the total variance, in the section *Workplace relations*. The statements all loaded above 0.6 on the four identified factors (questions 1, 2, 3, 4, 5 and 6 loaded on Factor 1; questions 10, 11, 12

and 13 loaded on Factor 2; questions 8 and 9 loaded on Factor 3; Question 7 loaded on Factor 4). It is evident from the quantitative results that, on average, the majority of the participants across all three mines agreed with the indicator statements contained in the *Employment relations* factor (Factor 1; mean = 3), the *Complaints-handling procedures* factor (Factor 2; mean = 2.84), the *Sexual harassment and sexual favouritism* factor (Factor 3; mean = 2.44) and the *Language* factor (Factor 4; mean = 2.74). The means of the *Sexual harassment and sexual favouritism* factor as well as the *Language* factor show worri-

Table 2: Pattern matrix^a

No.	Indicator statement	Workplace relations				Communalities
		Factor 1 <i>Employment relations</i>	Factor 2 <i>Complaints-handling procedures</i>	Factor 3 <i>Sexual harassment and sexual favouritism</i>	Factor 4 <i>Language</i>	
H2	Men and women are paid equal wages	0.753				0.641
H1	Men and women are treated equally in the workplace (in terms of promotion, bonuses, opportunities, etc.)	0.751				0.619
H4	I feel part of the work team	0.729				0.798
H5	I feel fairly treated by my male co-workers	0.691				0.598
H6	I feel fairly treated by management	0.683				0.644
H3	I feel accepted by my male co-workers	0.665				0.684
H11	The mining company effectively addresses sexual harassment in the workplace		-0.829			0.691
H10	The mining company has a committee that investigates sexual harassment issues in the workplace		-0.819			0.750
H12	The mining company has an effective channel for women to voice their concerns to management		-0.704			0.647
H13	I am satisfied with the way in which management handles the concerns of women in the workplace		-0.616			0.588
H9®	Sexual harassment (for example threats, demands and bodily contact) is a general problem in the workplace			0.864		0.764
H8®	Sexual favouritism (in other words sexual favours for co-workers and management) is commonly practised in the mining company			0.778		0.723
H7®	Language is a communication barrier to the effective performance of daily tasks				-0.718	0.676
	Cronbach's alpha	0.83	0.77	0.69		
	Factor mean	3.00	2.84	2.44	2.74	
	Factor standard deviation	0.55	0.63	0.82	0.89	

® Reversed statement

Source: Botha 2013

some responses, as they clearly indicate that sexual harassment and sexual favouritism do occur in the workplace and that language is a communication barrier to the effective performance of daily tasks. Factors 1 and 2 show good reliability with a Cronbach's alpha coefficient of 0.83 and 0.77 respectively, which is above the required 0.7, and show high reliability and internal consistency. Factor 3 has a Cronbach's alpha coefficient of 0.69, which could be regarded as an acceptable reliability. Only one question loaded on Factor 4, therefore Cronbach's alpha is not applicable.

Comparison of the Three Target Groups of the Different Mines Regarding Workplace Relations

The descriptive statistics together with effect sizes of the different target groups regarding the section *Workplace relations* are reported in Table 3.

The d-value of the female versus management target groups of the copper mine shows that the difference between the means for the *Employment relations* (medium effect) as well as the *Complaints-handling procedures* (large effect) factors is practically significant, indicating that the management target group of the

copper mine is more in agreement with the indicator statements contained in the factors than the female target group themselves. The effect size of the female versus male target groups of the copper mine shows a medium effect, for the *Complaints-handling procedures* factor.

A medium effect is evident from the d-values of the female versus male target groups, of the phosphate as well as the platinum mine for the *Sexual harassment and sexual favouritism* factor. It can be derived that on average, the participants of the male target groups of the phosphate and platinum mine are more in agreement with *Sexual harassment and sexual favouritism* than the female target group themselves. Therefore, more participants of the male target group believed that *Sexual favouritism is commonly practised in the mining companies* and that *Sexual harassment is a general problem in the workplace* than the women themselves. A large effect is evident from the female versus management target groups of the copper mine, as the d-value for this factor calculated at 0.7, indicating that more participants of the management target group disagreed with the factor and the statements contained in the factor than the women themselves.

A medium effect for the *Language* factor is evident from the d-value of the female versus

Table 3: Comparison of the three target groups of the different mines regarding workplace relations

Factor	Mine	Men		Women		Management		Effect sizes	
		Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation	Women vs Men	Women vs Management
Factor 1: Employment relations	Phosphate	3.23	0.40	3.31	0.48	3.16	0.32	-0.16	-0.32
	Copper	3.05	0.42	2.85	0.62	3.13	0.57	0.32	0.44
	Platinum	2.94	0.49	2.74	0.58			0.34	
Factor 2: Complaints-handling procedures	Phosphate	2.94	0.59	2.96	0.55	2.99	0.35	-0.04	0.04
	Copper	3.21	0.44	2.83	0.59	3.36	0.50	0.64	0.90
	Platinum	2.66	0.55	2.45	0.77			0.26	
Factor 3: Sexual harassment and sexual favouritism	Phosphate	2.56	0.73	2.10	0.70	2.00	0.74	0.64	-0.14
	Copper	2.24	0.64	2.27	0.92	1.63	0.56	-0.03	-0.70
	Platinum	3.10	0.76	2.58	0.78			0.66	
Factor 4: Language	Phosphate	2.71	1.07	3.15	0.75	2.17	0.72	-0.41	-1.32
	Copper	2.65	0.70	2.55	1.06	2.50	0.97	0.10	-0.04
	Platinum	2.69	1.01	2.75	0.55			-0.06	

(a) small effect: $d = 0.2$, (b) medium effect: $d = 0.5$ and (c) large effect: $d = 0.8$

Source: Botha 2013

male target groups of the phosphate mine. The effect size of the female versus management target groups of the phosphate mine shows a large effect, as the d -value calculated at 1.32. It is evident from the means in Table 3 that disagreement exists between the three target groups of the phosphate mine. The participants of the female target group agreed more than the participants of the male and management target group that language is a problem in the workplace.

Qualitative Results

The section below highlights perceptions and main concerns regarding workplace relations struggles obtained from the individual and group interviews as well as the open-ended sections of the questionnaire.

Equality in the Workplace

Although the quantitative responses yielded only positive results (*Employment relations* factor: mean = 3), the findings of the qualitative inquiry revealed some of the persistent inequalities. The following main concerns were highlighted:

Bonuses and Promotions: The male and female participants reported that they do not feel equally treated in terms of bonuses and promotions. On the one hand, the female participants were of the opinion that preference was given to male employees. According to them, the main reason for this is the perception that still exists that 'mining is not a place for a woman'. On the other hand, the male participants indicated that women are fast-tracked in mining companies and therefore it is much easier for them to qualify for bonuses and promotions. The male participants also voiced the opinion that sexual favouritism often plays a role in the promotion of women. The viewpoints of some of the participants are illustrated in the following comments:

You are considered for the interviews, but at the end of the day you will be surprised that there is no woman who has been given the position. It is only men, always. (Female miner)

We are here three generals who are awaiting promotion, but when she comes she will get the promotion. So we don't know what is happening. The men get angry, because we work hard too. (Male miner)

Quota Appointments: Female participants reported that they often feel unwanted at the mining companies. They believe that they are

appointed in positions due to the requirements of legislation, and not because they meet the requirements of the job. This view is also shared by some of the male participants. These perceptions are also supported by literature, which suggests that women who are employed on the mines in terms of the Mining Charter run the risk of being seen as 'quotas' and are therefore not being taken seriously.

Racism: According to the Black participants of the platinum mine, equal treatment in terms of race does not take place in the mining company. They voiced the opinion that Black women are often appointed in 'tough mining jobs', while White women are considered for positions that require light duty or are appointed in office positions at the surface. The following responses illustrate this point:

You won't see the White women working underground. They don't work like us. They just come in and take their samples, for example the geologist, and within two hours she is out. (Male supervisor)

Here in our shaft, really they don't care about us ... I don't know which women they are referring to, but Black empowerment, especially women, really, it's not happening. Because, now if you look around, in our shaft, there is no labourer like a White labourer, a White lady ... not to say we are judging them, but the thing is we have to be equal. We have to be treated equally. (Female miner)

Development: The female participants of the platinum mine voiced serious concerns regarding equal development opportunities. According to them, no transparency exists within the mining company in terms of development. They feel unfairly treated because it seems that some women are progressing faster than others in the mining company. Some participants also voiced the opinion that the mining company tends to employ external people, rather than developing their own personnel. These points are illustrated by the following responses:

Some ladies get developed in the company. We don't know what they are using, why this lady is given the opportunity to attend that course, but why [I am] not given the opportunity. We don't know this strategy, how does it work, because we are all employees, everything is supposed to be transparent. (Female miner)

The other thing that really hurts us, people are busy coming, new people from other shafts.

They take somebody from outside to be developed here. Whereas, we are here, and they don't develop us. (Female miner)

Acceptance of Women in the Workplace

From the interviews it became clear that resistance against women in the male-dominated mining environment still exists, however to a lesser degree. Stereotypes, such as 'mining is not a place for women', are still present. As one of the participants of the management target group indicated: "It is still a cultural and perception issue". The participants indicated that initially, when women were introduced into the core business of mining, men and women were afraid of each other. Men were afraid of getting too close to women; they were afraid of getting blamed for sexual harassment. Women, on the other hand, were afraid of men and the male-dominated mining workplace. However, as time went by and male and female workers became used to each other and women received the chance to prove themselves by showing their willingness and capability to do their work, resistance against women tended to decrease. The following quotations provide an indication of the female participants' opinions of how they are being accepted by male employees in the workplace:

When I started my work at the mine, the men always tell me that mining is not a place for a woman, but now they don't say that because they see that I can do the job. At the beginning I felt less accepted, but right now I feel more accepted. (Female miner)

Fifteen years ago, when I started my career in the mining industry, much more resistance against women were experienced than nowadays. Resistance against women in the industry has definitely decreased, but there are still areas where resistance is experienced. I think the areas where much resistance are experienced are the areas where there [are current] or previous bad experiences with women and their issues. But when there are women who really pull their weight and work hard, this resistance is increasingly decreased. (Female manager)

Discrimination

Some female participants indicated that they still experience severe discrimination by their male co-workers. As indicated above, some male

co-workers still believe that mining is not a place for women and that women belong at home. The male co-workers are often outspoken and the female workers often feel degraded and humiliated by remarks and comments made by them, especially when referring to women's ability and capability to perform mine work. The perception still exists that women cannot do what men can do in the mining environment; women constantly have to prove themselves. They often neglect their bodies to do their jobs well. The female participants also indicated that they experience a negative attitude from men when they have to fulfil family responsibilities, such as taking care of sick children. Men often think that women use their family responsibilities as an excuse to avoid work responsibilities.

Underestimation of Women in Leadership Positions

The women in leadership/management positions often feel that their abilities to lead and manage are underestimated. It was also indicated that the men do not readily take instructions from female employees, due to their traditional and cultural background. Furthermore, the concern was raised that women are often appointed in leadership positions but do not necessarily have the skills and capabilities to be appointed in these positions. It is indicated that women cannot stand their ground, and this often leads to men overruling women. The following comments illustrate these points:

Male employees often discriminate against women when they are in leadership positions. (Male miner)

It is not easy for men to accept instructions from a Black lady. (Female miner)

If holding the same management positions than men, women are not [taken] seriously and male employees don't respect women enough. (Female miner)

One thing, I think, that women are struggling a lot with is 'assertiveness', especially when it comes to more senior positions. Men easily overrule women if they find it difficult to stand their ground. We often experience it when women are appointed as supervisors and superintendents, and when they have to manage a lot of men. When women do not have the necessary abilities and expertise to fill those positions, they should not be appointed in those positions. (Female senior manager)

Isolation

Mining is production-driven and depends highly on reaching production targets; therefore, mining teams are compiled to ensure the highest productivity and consist mainly of men. It is often found that only one or two women work together with 10 to 15 men in a team. Women often feel isolated in the male-dominated mining environment; they feel uncomfortable and unsafe in the presence of so many men.

Sexual Favouritism

It was clearly indicated in the interviews that sexual favouritism occurs at the mines. The male participants of the platinum mine were outspoken and indicated that some female co-workers 'fall in love' with their supervisors in order to get promotions. It was also suggested that the problem is exacerbated by shift work and working overtime at night. This contributes towards the negative attitude of male employees towards women employed in core mining positions. The female participants, although not as outspoken, indicated that they are aware of sexual favouritism incidents.

Sexual Harassment

The participants of all three mines included in the study confirmed that sexual harassment is seen as a serious offence and that training and education take place regularly at the mines. Newly recruited employees undergo training sessions on sexual harassment during induction courses. The companies also engage in regular awareness campaigns on sexual harassment and the procedures to follow if sexual harassment occurs. Despite these attempts, sexual harassment remains an issue and incidents do occur. The following main concerns regarding sexual harassment were raised:

Afraid to Report Sexual Harassment Attempts: Although the majority of the female participants indicated that they know exactly what procedure to follow if sexually harassed, there are still women who do not know their rights and who are still afraid of reporting sexual harassment attempts or incidents. The following reasons were put forward for women often remaining silent: They are afraid of losing their jobs at the mine, they do not want to put their

male co-workers in a 'bad' position and they do not find it easy to lodge complaints of harassment to male supervisors. The female participants indicated that they would prefer to lodge complaints and report sexual harassment incidents to a female representative or supervisor.

Verbal Sexual Harassment: Verbal forms of sexual harassment include unwelcome innuendoes, suggestions and hints, sexual advances, comments with sexual overtones, sex-related jokes or insults, unwelcome graphic comments about a person's body made in his or her presence or directed towards him or her, unwelcome and inappropriate enquiries about a person's sex life, and unwelcome whistling directed at a person or group of persons (Pons and Deale 2010: 16). According to the female participants, they are exposed to verbal sexual harassment on a regular basis. It was indicated that they are "called names" and that they are exposed to "unwelcome verbal comments", especially when they are being transported in packed cages.

Night Shift: It was reported that working the night shift contributes towards the occurrence of sexual harassment incidents. Women do not feel at ease and safe when working with so many men during the night. Male co-workers often take advantage of these circumstances and scare women with their verbal offensive comments, as noted in the following comment:

To be honest, we are sexually harassed. They take advantage of us, because we are women and we are working at night with them. It is very uncomfortable. Let me just stop right there, because it is very uncomfortable. (Female miner)

Packed Cages: Women working underground are exposed to sexual harassment, verbally and physically, while being transported from the surface to the workplace underground and vice versa. The cages in which workers are transported are normally packed to maximum capacity. Physical contact is inevitable; employees are obliged to press against each other, as illustrated in the following comments:

The cage, they must do something about the cage, because they say the cage can take 50 people up, 50 down, but you find that the cage down has got more than 100 people in there ... And they will press you, not even your foot is down there, you are up there, because something is lifting you up from this side and this side and this side, and they know it's women. And if you complain they will just say "Our

wives are at home, what are you doing here? You say you want to work, so work". (Female miner)

There are too many people in the cage. The big one takes 80 people down, 80 people up. The small one takes 35 people. But these girls who are working there, they don't count, they can put maybe 100 into the cage. Some men take advantage and push against the ladies. (Male miner)

Handling of Women's Concerns

Although the quantitative responses of the copper and phosphate mines were positive (see Table 2), the following points were highlighted with regard to the handling of women's concerns:

Women in Mining Forum: From the interviews and focus group discussions it could be detected that Women in Mining forums exist and are functioning at all three mines included in the study. However, the following concerns were raised: Although meetings are scheduled and do take place, the participants indicated that they have a problem with the time when meetings are scheduled. On the one hand, women find it difficult to attend meetings due to the fact that employees are obliged to work shifts and are not available to attend meetings. On the other hand, some female employees cannot attend meetings because they are often scheduled after shifts, and women need to go home and take care of their family responsibilities. The functioning of Women in Mining forums was also indicated as a problem. The female employees indicated that they prefer to raise and discuss important issues during these meetings rather than listen to presentations. The female participants from two of the mines indicated that although they are given a chance to raise and discuss their issues at meetings, it takes too long before the issues are addressed. A need exists for the Women in Mining forums to be more visible and to be promoted.

Female Representatives: In terms of the handling of women's concerns, a need was identified for an approachable and loyal female representative at each shaft to whom female employees can lodge their complaints, or with whom they can discuss specific issues and who will treat the information as confidential. Women find it difficult to discuss their issues with men in management positions.

A Lack of Support Systems for Women in Mining: Women often feel neglected in the workplace. The participants indicated that they are not heard and that their complaints are not taken seriously. A need was indicated for an effective support system and complaints-handling procedure.

DISCUSSION

From the quantitative results, it can be deduced that on average, the female participants feel reasonably accepted in the male-dominated mining workplace, they feel part of the work team and they feel that they are treated fairly by their male co-workers and management. However, it was clearly indicated that sexual favouritism and sexual harassment remain major issues in the mining workplace (as also revealed by the qualitative inquiry) which effects should not be underestimated and which should not be neglected. Although a large number of the female participants of the copper and phosphate mines were satisfied with the way women's concerns are handled in the workplace, this was not the case with the female participants of the platinum mine.

The qualitative findings revealed further concerns regarding inequalities in terms of bonuses and promotions, appointments and development opportunities. Although it was indicated that women feel reasonably accepted in the mining workplace, it became evident through the qualitative inquiry that women are still subjected to discrimination, often experience a negative attitude from their male co-workers, are often not treated with the necessary respect, women in leadership positions are often underestimated and women often feel isolated in the male-dominated workplace. In addition, Black women indicated concerns of racism. This view is also supported by Black feminist theory which suggests that Black women often suffer triple oppression and disadvantages because they are Black, because they are women and because they are working class (Bilton et al. 2002; Brewer, cited in Haralambos and Holborn 2008). Issues of discrimination and development opportunities have also been raised in recent research conducted by the Australian Human Rights Commission (2013), Botha (2013), WiMSA (2015) and Women in Mining (UK) (2015). The South African Mining Charter as well as the require-

ments of the Social and Labour Plan obliged mining companies to develop and implement a comprehensive human resource development programme that includes a career progression (path) plan for each employee (RSA 2010a; RSA 2010b). Furthermore, South African legislation, namely the Constitution of the Republic of South Africa, the Labour Relations Act and accompanied affirmative legislation, requires a work environment free from discrimination. Stead and Watson (2010) emphasise that not only legislation is needed, but also a fundamental change in attitude towards women and female employment in order to successfully and effectively eradicate discrimination in the workplace. Management commitment to gender diversity is of utmost importance (Women in Mining (UK) 2015).

The quantitative and qualitative findings revealed serious concerns regarding sexual harassment. Research conducted by Women in Mining Canada (2010), MTS (2011), Botha (2013), Scheepers (2013), The Guild (2014) and WiMSA (2015) supports this view. Literature (Martin, cited in Anderson and Taylor 2006; Wharton 2006; Haralambos and Holborn 2008) suggests that sexual harassment occurs in every kind of work setting, but that some settings are more prone to sexual harassment than others. A strong predictor of sexual harassment is a work setting with a high male–female ratio, such as the mining industry. Therefore, women working in a male-dominated workplace such as mining are particularly vulnerable to sexual harassment. Wharton (2006) also emphasises that social closure often occurs when men or women enter an occupation, job or work setting that has been previously dominated by the other sex. Men in predominantly male jobs often perceive women as a threat to their power and status, and therefore may be motivated to drive them out. This resistance can range from attempts to make women uncomfortable or to refuse assistance and support to more serious expressions of hostility and harassment, such as sexual harassment. Sexual harassment should not be tolerated. A good working sexual harassment policy should be developed. Regular training on the policy should be provided to all employees (male and female). A reporting mechanism should be developed. Implementation and operationalisation of the sexual harassment policy as well as relevant mechanisms are required (Noe et al. 2008; Nel et al. 2011).

CONCLUSION

From the research it is clear that the integration of women into the mining workforce is accompanied by various challenges. Women struggle to be fully accepted by male co-workers, they are still subjected to discrimination, development opportunities are not clear and transparent, they are constantly exposed to some form of sexual harassment and there is a lack of effective support mechanisms for women working in mines. Therefore, all measures should be taken to create a work environment free from conflict and conducive to constructive and harmonious workplace relations. By understanding the complexities accompanying the integration of women into the core business of mines, employment relations practitioners and labour experts could play a meaningful role in ensuring a smooth integration of women into the mining sector.

RECOMMENDATIONS

In light of the findings of this research, the following recommendations are made:

Management should be committed to providing a gender-inclusive environment by increasing the participation of women at all levels (operational and professional), and by providing structured mentoring programmes for women.

Regular diversity training and workshops should be conducted to create awareness of men and women's workplace issues, and to stimulate an environment in which people's differences can be respected.

Mining companies should implement measures such as career counselling to support women in dealing with issues in the workplace, such as assisting in confronting myths and stereotypes in the workplace, assisting in balancing home and work responsibilities, preparing women to handle sexual harassment in the workplace, setting up specific support groups for women, and so on so forth.

Mining companies should implement an effective support system (Women in Mining Forum, female representatives at shafts, etc.) and a complaints-handling procedure for women employed in the core business of mining.

LIMITATIONS OF THE STUDY

A limitation to the study lies in the accessibility of the mining sector as a research setting.

It was not an easy task to gain access to the mining companies. Several visits and correspondence took place before permission was granted for the research. In addition, the platinum mine experienced many difficulties and labour unrest during the time the research was conducted; several interviews with management were postponed and eventually cancelled. Despite numerous attempts from the researcher, no quantitative responses (questionnaires) were received from the management target group of the platinum mine. Furthermore, not all participants targeted for the semi-structured interviews and group interviews turned up for the meetings. Some of the participants could not stay for the duration of the interviews, due to work responsibilities and emergencies. Others were drained and tired after shift work and wanted to depart for home as soon as possible to get some rest and take care of their family responsibilities before the start of their next shift. The researcher made use of existing skills, knowledge and networks to overcome some of these problems.

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