

3.5.2. Psychological and Social Consequences of Social Isolation

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3.5.2. Psychological and Social Consequences of Social Isolation

In the review of miner issues related to social isolation we found five relevant articles, two regarding work stressors related to isolation, two related to programs implemented to reduce the effect of isolation, and one reporting a tool to measure safety in remote workers. For the purposes of this research, social isolation refers to miners who work in remote areas alone or separated from their home communities.

The question that guided our search was “What is the effect of social isolation on employees’ safety engagement?”

Method

A scoping review of the literature was undertaken using a formal and informal search. The initial formal search was conducted using the following key words:

1. Miners (OR Miners OR “mining communities” OR “mining community” OR “remote community” OR “remote communities” OR “northern community” OR “northern communities” OR industry OR “resource extraction”) and,
2. Isolation (Isolation OR “isolation effect” OR “social isolation” OR FIFO OR DIDO OR “fly in fly out” OR “drive in drive out” OR northern OR remote)
3. Safety Engagement (or “risk taking behavior” OR “risk taking behaviour” OR “safety behavior” OR “safety behaviour” OR safety OR “high risk behavior” OR “high risk behaviour” OR “safety engagement” OR “safety rule violation” OR “accident proneness” OR “accident prone” OR “risk perception” OR “perception of safety” OR “workplace safety” OR “work safety” OR “risk tolerance” OR “occupational safety” OR “occupational health”)

Search Strategy. The databases searched are listed in the results. From this search, we selected articles based on the inclusion/exclusion criteria. The inclusion and exclusion criteria were kept broad in that we did not specify the types of research methods to be included or excluded in order to capture as many research articles on the topic as possible. In our search, we collected articles that were pertinent in this topic area. The broad inclusion and exclusion criteria allowed us to explore the literature in this area more completely. We expanded our search to include northern communities as well as mining communities looking at areas where social isolation may be a concern. As well, we made the assumption that all industries would have the same concerns with social isolation and safety.

Table 1. Psychological and Social Consequences of Social Isolation Inclusion/Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
<ul style="list-style-type: none"> • Articles with key terms in the title or abstract • Peer reviewed • Within 5 years • English language articles 	<ul style="list-style-type: none"> • Editorials • Commentaries • Book reviews

Screening Strategy. From the search results, we reviewed the title and abstract of each article to determine its inclusion in the scoping review. Each selected article was read by a team member and information pertinent to the study was abstracted. All articles were reviewed by a second team member, and any disagreements were resolved. Those not applicable to the scoping review were excluded.

Results

A brief summary of each article including its location, population studied, main issue addressed, comparison group, and primary outcomes is provided in G. Table 2 is a representation of the scope of the review and the number of articles included.

Table 2. Psychological and Social Consequences of Social Isolation Databases Searched

Database	Articles screened by title/abstract	Abstracts reviewed by group	Articles selected for inclusion
Academic Search Complete	10	48	5
CINAHL	0		
Medline	0		
Nursing Allied Health	4		
Engineering Village	0		
PsyInfo	1		
CBCA Business	12		
Embase (U of S)	9		
Scopus (U of S)	0		
Web of Science (U of S or U of R)	6		
ABI Inform (U of S or U of R)	6		

Description of Included Articles. Table 3 provides an overview of the types of publications, country of publication, and populations studied.

Table 3. Psychological and Social Consequences of Social Isolation: Study types, countries, and populations.

Type of Study	Country of Research	Population
Cross-sectional survey (1)	Australia (3)	Air medical workers (1)
Qualitative study (3)	Canada (1)	Mobile remote workers (1)
Survey development (1)	USA (1)	Coal miners (1)
		Other remote workers (1)
		FIFO/DIDO miners (1)

Description of Identified Factors. There were very few articles identified in relation to this scoping review question. Three articles identified potential work stressors related to social isolation, one article discussed leisure programming, and one article described survey development. In a cross-sectional survey design of air medical workers, Day, Sibley, Scott, Tallon, and Ackroyd-Stolarz (2009) identified stressors associated with working in isolated conditions. They found participants need work stressors related to safety and risks, and there was a negative relationship between job control and burnout, and job control and stress. Day et al. proposed lack of contact led to feelings of isolation and perceptions of no support. The participants reported team work was important in decreasing exhaustion and depersonalization.

In a descriptive qualitative study, McLean (2012) identified some side effects of isolation. The participants reported “chaos” due to remoteness, loneliness, boredom, lack of family supports, social isolation, lack of health-seeking behaviors, and an increase in risk-taking on days off. They reported participants had a positive workplace experience if they had personal and organizational supports.

Although not a direct link to safety engagement, these two articles may give insight into work stressors related to working at remote or isolated mining sites.

In a descriptive qualitative study, Torkington, Larkins, and Gupta (2011) found both positive and negative impacts of working in remote mining companies. Participants described positive impacts, such as high work satisfaction and financial benefits, as well as negative impacts, such as a disruption in family and social activities. The participants reported not being able to rely on employee assistance programs to counteract work stressors due to knowledge barriers and problems with access.

Mining companies may have employee assistance programs to reduce the effects of isolation. However, Torkington et al. (2011) found miners preferred family and colleague support to these programs. The researchers also found employee assistance programs (EAPs) could not be relied on to counteract work stressors because there was a reluctance of employees to seek support, employees and families lacked knowledge about the programs, and access to the programs may be difficult.

One article looked at leisure programs. In a qualitative study, Perring et al. (2014) looked at attitudes towards leisure time. They found recreational infrastructure enhanced the experience of being away, promoted social interaction and inclusion, improved well-being, and fostered a sense of community which may reduce alcohol-related social exclusion.

Huang, et al (2013) developed a survey to measure the safety climate of mobile remote workers. They proposed the survey could provide an in-depth understanding of the safety climate for these workers. The survey considered two safety levels: organizational-level safety and group-level safety. The dimensions included in organizational-level safety were safety pro-activity, general training, trucks and equipment, field orientation, financial investment, and schedule flexibility; and the dimensions included in the group-level safety were supervisory care, participation encouragement, and safety straight talk (Murphy & Lee, 2013). This tool may be used in future studies to broaden our understanding of the effects of isolation or working in remote areas on safety engagement.

Discussion

Some stressors related to isolation in remote mining areas can be alleviated with recreational or social activities. In the studies reviewed, social activities had a greater effect on reducing the stressors than did employee assistance programs. Employees indicated a preference for support from family and colleagues than from company programs. More work to identify stressors and what works best to alleviate stressors needs to be done.

Gaps in the Literature. There are very few articles on isolation and employee safety engagement. More research is required in this area. Two of the articles looked at work stressors and side effects of isolation. These stressors may affect employee safety engagement but there is very little information to work with. Future studies could look at how these particular stressors related to isolation may affect safety engagement. A tool to measure safety was proposed by Huang, et al (2013).

Recommendations. Although there are very few articles on isolation and employee safety engagement, the following recommendations are based on the current scoping review:

- Planning for off-time recreation in remote communities.
- Engaging in research within the organization to determine the needs of the employees.

References

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