Seasonal absenteeism among full-time employees at a poultry abattoir

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ABSTRACT

The different seasons of the year may have an impact on absenteeism from work. Absenteeism may influence the workforce in a given season and plans must be set in place to combat this. A study was conducted at a poultry abattoir in which absenteeism during the four seasons of the year was compared and the overall absenteeism rate of the company calculated. The absenteeism rate of the abattoir was 3.2%, thus above the norm of 3.0%. Absence during autumn was the highest followed by spring. The absenteeism rate for summer and winter were almost equal. The seasons with the most severe changes in the weather pattern had the highest rates and winter was not the worst. It is recommended that detailed records of absenteeism must be documented and then investigated by management.

Key words: absenteeism; seasonal; poultry abattoir; record keeping; documentation review

INTRODUCTION

Employees are considered one of the most valuable and crucial resources of an organisation. Absenteeism of employees is an important aspect for a company to monitor owing to the impact that it may have on the workforce during a specific season and also the effect that work-related issues, such as the management style, workload and work relationships have on the absenteeism record of the company. Employees may have many reasons for being absent from work which can be classified as “certified, uncertified and family reasons.” Many of these reasons may be due to illness, household or social problems. Additional reasons such as work-related factors including the work conditions and the work environment were identified as important contributors of ill-health. Such ill-health could result in an increase in sick absenteeism with consequent disruption of the productivity of such employees. According to the Basic Conditions of Employment Act of South Africa an employee is entitled to paid sick leave equal of the number of days they would normally work in a six week period in a 36 month cycle. The most common way of measuring sickness absenteeism is by the sick leave rate – that is, the total number of sickness days divided by number of people or person-days. A 3% sickness absenteeism rate is considered as acceptable by several researchers. Alternatively, the incidence of sickness
can also be measured in terms of how long (on average) employees were absent from work.\textsuperscript{15}

Work characteristics could be influenced by the effect of seasonal changes as Ramazzini, in his inaugural orations The Health of Princes, mentions the seasons as reason for diseases.\textsuperscript{17} He urges doctors to possess barometers, hygrometers, wind gauges and other instruments to note the effect of change of weather. In his work, he also notes the effect of the seasons on the health of farmers. Absenteeism due to illness cannot be predicted, although studies have shown a relationship between work characteristics and prospective sickness absence over a five year period.\textsuperscript{18,19} If a seasonal difference in the rate of absenteeism could be identified,\textsuperscript{20} management could have strategies in place to deal with expected rates of absenteeism for the various seasons. When planning the managerial approach of each individual department, absence per department may be an indicator of their functionality.\textsuperscript{21} Predicted absenteeism rates can be used to plan the workforce during seasons with higher expected absenteeism rates.

A number of studies on absenteeism have been conducted around the world.\textsuperscript{3,7,9,16,22} However, specific studies of absenteeism related to the seasons of the year for a South African company could not be found in a literature search. It was therefore decided to conduct a study to describe the absenteeism rate at a poultry abattoir in relation to the seasons of a year (March 2008 to February 2009) and to establish whether differences in seasonal absenteeism could be identified.

**METHODOLOGY**

A cross-sectional descriptive study was used to investigate the absenteeism of full-time employees at an abattoir in relation to the four seasons of the year. The abattoir employed a total of 354 full-time workers during the period of the study. The employees were all assigned to one of five departments and only worked in the assigned department. The poultry is received and slaughtered at the first department (receive and slaughter department; RSD). In the Fresh department meat is cut up into portions. The portions are then individually quick frozen (IQF department).

Data collection was done retrospectively through a record review method of information in the employee attendance records kept by the human resources department at the abattoir. The data were captured by the second author into a Microsoft Excel spreadsheet. The season in which the first day of each individual absence was recorded, was regarded as the season of absence irrespective if the absence continued into the next season. The absenteeism rate per department and the overall absenteeism rate of the company were calculated. The analysis of the data was done using simple calculations such as the calculation of absenteeism rate, shown hereafter:\textsuperscript{10,23}

\[
\text{Absenteeism rate} = \frac{\text{amount of absent days}}{\text{amount of assigned workers}} \times \text{amount of workdays}
\]

Absenteeism for this study was defined as the physical absence from work without prior arrangement. Annual leave and absence from work due to occupational disease or injury were not included in the definition of absenteeism in this study, as the purpose of this study was to focus on unplanned leave taken by employees, and records of leave due to occupational disease or injury were not available to the researcher.

The seasons of the year were defined according to the seasons of the southern hemisphere and were noted as follows:\textsuperscript{24}

- Autumn starting on 01 March 2008 and ending on 31 May 2008;
- Winter starting on 01 June 2008 and ending on 31 August 2008;
- Spring starting on 01 September 2008 and ending on 30 November 2008; and
- Summer starting on 01 December 2008 and ending on 28 February 2009.

Working days were the official working days according to the South African calendar with a five-day working week. No weekend or overtime working was captured as these extra working hours were outsourced. The workforce was the workforce calculated by management for the five specific departments in the abattoir.

Permission to do a research project was granted by the management of the abattoir. The project was approved by the Ethics Committee of the Faculty of Health Sciences, University of the Free State. A pilot study was done on data from one month during 2007 to test the methodology and data capturing forms. No changes were required.

**RESULTS**

The overall absenteeism rate for the abattoir was 3.2\% (Table 1). The findings shown in Figure 1 indicated that
absence during autumn (4%) was the highest, followed by spring (3.2%). The absenteeism in summer and winter were almost the same at 2.7 and 2.8%, respectively. Autumn had a much higher rate than the average rate of absenteeism for the company during the period, and the rates of absenteeism in the IQF, Fresh and RSD departments were above 3.8% during autumn.

“...absence during autumn (4%) was the highest, followed by spring (3.2%).”

The IQF department had the highest absenteeism rate of the five departments in the abattoir. The department had a rate of 4.8% during autumn, and the lowest rate was 3.0% during the summer season. This department had an average rate of 3.7% for the year, followed by the Fresh department (3.5%). The Quality department had the best rate and was constantly below the average for the company during all seasons (2.0%). The Quality department was the only department that did not follow the seasonal trends of the company. It did, however, record the highest rate during the same season as the other departments, but the department recorded winter as the second highest rate followed by spring and summer. The RSD department also recorded the highest rate during the autumn season followed by winter.

DISCUSSION

The abattoir had an absenteeism rate of 3.2% compared to the acceptable rate for industries of 3%. Although the absenteeism rate for the abattoir was not extremely high, it is cause for concern. The increased attention on the effects of work on employee health in general warrants an extensive study into the details of employee absenteeism within organisations. However, this study did not investigate the specific reasons for the absenteeism apart from the seasonal trends as the employee leave records did not include the reason for absence as this was not deemed necessary by the abattoir. Only the type of leave for each employee was recorded. This is a major deficiency identified during the study. As there are numerous reasons why an employee may be absent from work – illness, injury, family responsibility, transport problems and low morale, to name but a few – it was not possible to establish a definite link between absence and the changes of season alone. Complete employee leave records are essential to reducing unnecessary administration and improving management control. The records can also be used to identify any employee-related trends within a factory or even within a department. Such a complete record system could even be useful during the appraisal process, although organisations should be careful when using such information. Ghebregiorgis and Karsten warned organisations about the lack of information regarding the dynamics of human resource management in developing countries. More important should be the efforts to link the results of a formal risk assessment to the absenteeism pattern and rate of a department in order to address possible deficiencies. However, the human resource department as well as the occupational health service should ensure confidentiality of individual records. Therefore, the utilisation of individual employee records are not recommended but an overall approach per department could provide the necessary information to identify problematic areas as soon as possible. It is recommended that organisations develop and maintain a detailed absenteeism record system. Such absenteeism record systems should include the demographic details of employees, work station, date of absenteeism, the employees’ reason for absence, and any other information deemed necessary. The record system should be linked to employees’ occupational health records without compromising confidentiality. Prompt investigation of all unusual absenteeism or trends should be undertaken with an action plan implemented to take decisive actions to address problem areas promptly.

### Table 1. Sickness absenteeism (%) per season according to the department

<table>
<thead>
<tr>
<th>Season</th>
<th>Receive, slaughter and defeathering (47 employees)</th>
<th>Cut up and fresh (121 employees)</th>
<th>Gyro and freeze (112 employees)</th>
<th>Quality control (41 employees)</th>
<th>Maintenance (33 employees)</th>
<th>All departments (354 employees)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autumn</td>
<td>3.83</td>
<td>4.08</td>
<td>4.76</td>
<td>2.76</td>
<td>3.08</td>
<td>4.02</td>
</tr>
<tr>
<td>Winter</td>
<td>3.52</td>
<td>2.27</td>
<td>3.19</td>
<td>2.10</td>
<td>2.64</td>
<td>2.76</td>
</tr>
<tr>
<td>Spring</td>
<td>2.23</td>
<td>3.81</td>
<td>3.63</td>
<td>1.79</td>
<td>2.10</td>
<td>3.16</td>
</tr>
<tr>
<td>Summer</td>
<td>1.53</td>
<td>3.62</td>
<td>3.00</td>
<td>1.12</td>
<td>1.74</td>
<td>2.68</td>
</tr>
<tr>
<td>Average</td>
<td>2.78</td>
<td>3.45</td>
<td>3.65</td>
<td>1.94</td>
<td>2.46</td>
<td>3.15</td>
</tr>
</tbody>
</table>

Figure 1. Total absenteeism rate of the abattoir per season
Researchers have conducted studies to determine the association between the effects of the climate and the occurrence or severity of symptoms of certain diseases, because the potential role of climatic conditions in the etiology of certain conditions such as asthma and allergies has long been suspected. Laboratory studies showed an increase in blood pressure during sudden exposure to a cold environment, and researchers hypothesised that employees who work for the greater part of the day in a closed, air-conditioned environment, are less exposed to the acute seasonal variations caused by ambient temperature. In this study, autumn was found to have the highest absenteeism rate of all the seasons followed by spring. Autumn and spring have the most severe changes in the weather patterns. Autumn is the time of year when the body must reacclimatise to the changes from warm to cold, and all the departments had the highest rate of absenteeism during autumn. It is possible that a combination of all these factors could result in an increase in employee absenteeism. Winter and summer had almost half the absenteeism rate of the other two seasons. Winter or spring were not the worst in absenteeism in this study as alluded to by Ramazzini. The rate for the winter season was only 2.8%, which is less than the absenteeism rate regarded as acceptable by researchers. In fact, winter had the second lowest rate of absenteeism during the investigated period.

As for the departments in the abattoir, the IQF department had the worst absenteeism rate with an average rate of 3.7%, with the highest of 4.8% during autumn and the lowest rate of 3.0% during summer. The average absenteeism rate was above the abattoir’s average for all four seasons. The employees of this department work in a cold environment as this is where the end product is quick-frozen, which could be an important factor to be considered. The Quality and Maintenance departments had the lowest rates of absenteeism and were constantly below the average for the company in all seasons during the study period. Taking the overall absenteeism rate as an indicator of functionality of a department, it was apparent that the Quality and Maintenance departments were functioning very well with an average rate of 2.0% and 2.5%, while the IQF and Fresh departments were both above 3% and were thus not functioning at an optimal level.

Interesting to note is that the average rate of absenteeism in the RSD department for the period was 2.8%, with the highest rate during autumn (3.8%). This was less than the average rate of the company (4.0%) for the autumn season. The receiving of livestock was done outside the building where the poultry were delivered by trucks. The employees working in the receiving area (RSD department) were thus more subjected to the elements of nature than their colleagues who worked indoors. However, this department followed the basic absenteeism trend of the company and was surprisingly not the worst in the absenteeism rate. Thus the observation was made that working in a closed confinement may be considered as a major contributing factor to absenteeism, and may be even more important than the weather and thus needs to be researched. Ventilation may also be a contributing factor and further research is needed to test this statement/hypothesis.

Follow-up research at the same abattoir and other abattoirs could be conducted once the reasons for absence from work have been documented to evaluate the relationships between the change of weather and the absence from work. Such a study should be more extensive as a limitation of this study was the fact that the absenteeism of employees in the abattoir over only one year was studied.

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LESSONS LEARNED

- Limited information is available on the effect of climate on employee absenteeism patterns in South Africa.
- Winter did not have the highest employee absenteeism rate as expected in this study.
- Regular absenteeism reviews of employees are necessary to identify possible high risk areas in an organisation.
- Complete absenteeism records of employees are a necessity to provide management with detailed but anonymous reports to act upon.
REFERENCES


