Introduction

Normally the concept of ergonomics refers to humans and their jobs. It is concerned with behaviors, psychosocial, and other factors of humans in performing their job. It defines the limitations and comfort criteria for human beings to perform a secure job. The basic purpose of ergonomics is to remove the hurdles in performing quality work and safety of employees. Various ergonomic risk factors as Biomechanical, psychosocial, organizational and hard physical factors, create various musculoskeletal issues which prevent the employees to perform their job with comfort also create health related problems. Ergonomics deals with risk factors assessment and designing a job, tools and sitting equipment in such a manner to prevent employees from various physical injuries. Various researchers defined ergonomics in the following manner.
Association between Organizational, Biomechanical, Hard Physical and Psychosocial Risk Factors and Job-related Musculoskeletal Problem Disorder: A Systematic Literature Review

**Authors**

<table>
<thead>
<tr>
<th>(Te–Hsin and Kleiner 2001)</th>
<th>Definition of Ergonomics</th>
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<td></td>
<td>Ergonomics is a combination of the words ergo, a Greek word meaning &quot;work&quot; meaning &quot;study&quot; – the study of work. An applied science that co–ordinates the design of devices, systems and physical working conditions with the capacities and requirements of the workers.</td>
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<td>(Tayyari and Smith, 1997)</td>
<td>A branch of science that is concerned with the achievement of optimal relationships between workers and their work environment.</td>
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<tr>
<td>Brooks et al</td>
<td>A system of interacting components which includes the worker, the work environment both physical and organizational, the task and the workspace.</td>
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Following are different ergonomic risk factors:

**Biomechanical risk factors**

These factors are associated with the working environment provided to employees. How much the workplace is peaceful or noisy and which factors affects the comfort-ness of the employees?

**Psychosocial Risk Factors**

It indicates the interactions between management and employees. How much stress is faced by employees may be emotional stress or work stress?

**Hard Physical Job Risk Factors**

This type of risk arises when employees have to lift weights; force exertion is more demanded in performing a job.

**Organizational Risk Factors**

Organizational risk factors associated with the terms and conditions of work, working hours in a day, rest breaks and job’s time etc.

**Systematic Literature Review**

To explore the link between ergonomic risk factors and jobs, the Systematic literature review is studied through PRISMA framework.

**PRISMA Flow Diagram**

*Figure 1*

*PRISMA flow diagram*

**Identification of studies via databases**

- Records identified from*:
  - Databases (n = 163)
  - Elsevier (n = 80)
  - Springer (83)

- Records removed before screening:
  - Duplicate records removed (n = 12)

- Records screened (n = 151)

- Records excluded** (n = 48)
  - Reason 1 (n = 45 review papers were excluded)
  - Reason 2 (n = 3 books were excluded)

- Studies included in review (n = 103)
The literature is studies and divided into 4 categories as literature is full with 4 major critical risk factors related to jobs.

**Figure 2**
*Critical Risk Factors Associated to jobs.*

**Biomechanical risk factors/Physical Risk Factors**

(Sonja Pavlovic Veselinovic et al, 2015) developed SONIC (Computer based expert system) to analyze the ergonomic facts at different job places and generate 140 simple questions on the basis of different modules related to the symptoms of body part and related to the work place environment like work chair and working tools etc. and was taken answers from 500 observations and study concluded that employees at job place suffering the risk factors associated to musculoskeletal disorders. (T. Sakthi Nagaraj et al, 2019) investigated the ergonomic risk factors related to the working conditions in Sri Lanka for standing sewing machine operators, that leads workers toward discomfort and musculoskeletal syndromes. (Ishwarya and Rajkumar, 2020) select 5 construction sites and take data from management as well as from employees to know the viewpoints before designing ergonomics tools. During this survey, awkward postures were noticed like the posture of back bent and twisted back portrayed the Ergonomics risk factors at construction sites. In assembly lines, to increase production, high burden is on workers as well as some risk factors like musculoskeletal disorder can be observed in employees of assembly lines due to repetition of work (G. Mossa, 2015).
It was explored that heavy loads and postures also affect the workers’ health. To analyze the ergonomic risk factors at job places they examined the ways to amend at job places to reduce the musculoskeletal pain, awkward postures in assembly line jobs. During their survey they observed if job rotation is implemented the musculoskeletal pain related risk factors can be minimized (Alena and Olga, 2017). 3003 respondents were randomly selected by (Baiduri Widanarko et al, 2012). To analyze the lower back symptoms among workers in New Zealand, data was collected through telephone calls. Study indicated that tiring and awkward positions of employees become a cause of absenteeism. (Dimate–Garcia and Rodriguez–Romero, 2021) claimed that musculoskeletal disorder affect the students and for this purpose they analyzed the risk factors associated with postgraduate students and 304 graduate college students were randomly selected and it was detected that students were suffering with symptoms of neck, eye, stretching, shoulders, elbows, hand–wrist, back pain, upper and lower limb. These issues were detected due to the usage of laptops, and working without the support of any table etc. (Sourabh Kulkarni, 2019) investigated the risk factors related to the foundry workers in India, data was collected through Nordic musculoskeletal questionnaire.

Data was observed from 181 male foundry workers and logistic regression analysis were applied and results indicated lower back, neck and knee problems due to the inconvenient working environment. (Ling lei et al, 2005) investigated the ergonomic risk factors among foundry workers in China. Study was based on 617 foundry workers who responded through Nordic questionnaires and reported low back disorder symptoms among workers due to lifting and using vibrating tools. (Iman Dianat et al, 2015) suggested the ergonomic risk factors among sewing machine operators in Iran and for the aim 251 SMOs were selected and reported their responses through a Nordic questionnaire. RULA methods were used to analyze the risk factors. The results found musculoskeletal symptoms such as neck, shoulder, back, hand and wrist were found due to the working environment and standing position during their work. (Kari Babski–Reeves et al, 2005) explained 33% of VDT operators reported annual back and neck pain. Due to this, ergonomic chairs were developed. The study was conducted to know the effect of chair types and monitors on the health of operators. Results indicated that human body is significantly influenced by the types of monitor and chair. At the same time, posture issues due to body discomfort are reported by respondents. (Robert A. Warner et al, 2010) accompanied a study in automobile assembling sites to assess the biographic and demographic risk factors associated with the worker’s health. Data from 3169 nurses was taken to analyze the risk factors associated with their jobs, study indicated nurses were suffering with MPD, low back pain, neck pain, shoulder pain and health issues due to the physical factors at their job places. Pushing, pulling and turning the patients with hands and arms lead them toward MPD (Ellen boss et al, 2007). Neck bent postures at job places indicated neck pain disorder among computer users (B. Cagnie et al, 2007). Clerical staff and organizational workers were observed for carpal tunnel syndromes. Results showed that work of peak force level at jobs was the major reason for hand pressure, pain and CTS among employees (Nancy Gell et al, 2005). 4500 Computer users in IT departments of India were investigated and 22 % workers were suffering issues due to the work styles, 63% employees were indicated with Pain due to the pressure/deadlines and lack of breaks during their work (Deepak (Sharan et al, 2011). Work load, discomfort, working conditions and work environment is explored as a reason for early retirements of employees (Eero Lahelma et al, 2012). CTS were assessed among female cashier employees of supermarkets. Results indicated repeating of work creates, CTS issues, pain in at least first three fingers and wrist to palm pain (Roberta Bonfiglioli et al, 2007). Dental students were observed by (Rajani A. Dable et al,
2013). Ergonomic posture risk factors and discomfort environment caused MPD among dental students. (Esmaiizadeh, Ozcan and capan, 2012) investigated MPD among computer workers due to the postures and physical risk factors associated with their work.

**Psychosocial Stressors Risk Factors**

Computer usage and tools related to computers like mouse, keyboard, telephone and chair etc. could be the reason for discomfort in office. So to identify the risk factors associated with computer work in offices (Mishael Sonne et al, 2011) studied 72 work stations and concluded that using of computers and wrong positions caused total body discomfort level. Hi–tech industries were analyzed in respect of ergonomics risk factors by (Shuval and Donchin, 2005). Data of 84 workers was taken into account, including programmers, managers and marketing officials. They investigated through RULA and concluded employees were under pressure of hectic time routine and it resulted in wrist, fingers and hand issues related to the arms. Neck and shoulders issues were also prevailing among employees from the last 2 years in hi–tech industries, specifically where employees are working for 10 hours in a day. The ergonomics risk factors are also associated in the working of video display terminal operators (VDT). Ergonomic risk factors were analyzed by (Foglemen and lewis, 2002).

For the aim, they sent their questionnaires for survey to 373 observant and out of these only 78% which indicated as 292 responses were caught back, according to the survey, the risk related to discomfort increases statistically significantly within increase the number of hour usage of keyboard and screen times. Also the position of the monitor and screen affected the eyes, head, shoulder and back (Alireza Choobineh, 2011) described that musculoskeletal disorder occurs due to physical risk factors but also because of psychosocial risk factors among employees. They also described how ergonomics interventions influence musculoskeletal disorders and discomfort-ness among employees in office. For the purpose they selected 73 employees as a case and 61 office employees as a control group. These members were selected randomly. Data was collected through a Nordic musculoskeletal questionnaire and it was observed in 28.8 % of employees that low back pain was the major issue. Musculoskeletal issues were reported from the employees in office work, including upper back, lower back and ankle/foot pain.

(Holcroft and punnett, 2009) claimed risk factors prevailing among wood processing workers, they also claimed injuries associated with their hard and tough work. To analyze these factors they selected 157 cases which were given compensation for being injured and the remaining 251 controlled interviewed to collect the required data. Major injuries were due to lack of training and overburden. 763 workers were randomly selected by (Xiaoqi chen et al, 2018) to analyze the link between psychosocial risk factors and neck pain. Results indicated that employees working in the office for more than 6 hours in a day are significantly associated with neck pain. A study was started by (Kiook Baek et al, 2017) to explore work related psychosocial risk factors which were assessed among emotional labors. For the purpose of study 3979 participants were selected and collected data from them. It was concluded that employees who were satisfied with their jobs were involved in major issues of musculoskeletal pain. A research study was conducted by (M. Massaccesi, 2003), on truck drivers to find the ergonomic risk factors. 77 truck drivers of rubbish–collection vehicles were selected as a sample of study, who sits in a standard position. They were analyzed with RULA technique. Results of study indicated the significant link between risk factors that affect the neck, upper limb disorder, bending and twisting issues. Due to more time spent on driving. A study was conducted on truck assembly plants by (Mohsen zare et al, 2015) to assess the risk factors among workers doing hard jobs on plant. The plant is categorized in 2 types,
1st complete it’s circle, in 8 minutes and another, in 11 minutes.

To assess the Psychosocial and physical factors, a questionnaire was developed and respondents reported that musculoskeletal disorder prevailing among workers. At the same time, the study reported that there is no differentiation in results of both types of organizations. (Kristel Oha et al, 2014) indicated psychosocial risk factors among computer users that results in musculoskeletal issues. A survey was conducted to observe psychosocial risk factors in terms of time pressures, intense work and stress of jobs, related to their jobs. Survey indicated the MPD issues among the hotel workers. 617 cases of home care workers, who were near to receive the pension and 771 workers were still working. Responses from the respondents indicated time pressure, poor caring techniques, decrease in lifting tools, less support from Organizations, leads them toward the (MPD Lotta delve et al, 2003). (Ellen boss et al, 2007) found that nurses were suffering with MPD, neck and back pain due to the lack of support from their supervisors and administration and repetition of work. Individual, physical and psychosocial risk factors from 512 computer users were observed who were suffering from neck pain. Psychosocial risk factors like, lack of staff, similar per minute movement and consistent working were indicated as the major reasons for neck pain (B. Cagnie et al, 2007). (Shahla Eltayeb et al, 2009) neck pain, shoulder’s pain, forearms and hand pain complaints were observed due to the physical and psychosocial risk factors among the 264 computer users.

Psychosocial risk factors were observed among school children and results indicated students suffer shoulder and neck pain due to stress (Elham Gheysvandi et al, 2019). Psychosocial risk factors were observed among employees and became the reason for early retirements (Eero Lahelma et al, 2012). Psychosocial factors were associated with jobs of hospital nurses who suffered shoulder, neck and back pain due to stress, discomfort, and low breaks during working (Evangelos C and Alex Burdorf et al, 2003). Psychosocial factors were proven the reason for MPD, lower upper back pain, shoulder pain, neck pain, hand pain and elbows of computer office workers (Gintarekaliniene et al, 2016). Psychosocial risk factors were observed as a reason for MPD among 2000 office workers. Shoulder, elbow, wrist and hand issues were observed among office workers (Prawit Janwantanankul et al, 2009). The data from 100 school teachers was taken by (Thomas T.W. Chiu and Peggo K.W. lam, 2006) to analyze the psychosocial ergonomic risk factors associated with their work. Study indicated neck and upper limb pain among workers.

**Hard Physical Jobs related Risk Factors**

Ergonomics risk factors were identified by (Forde and Buchholz, 2004), in the construction ironwork industry among employees. Special task activity based analysis (STBA) was conducted to investigate qualitative analysis from 13821 workers. The STBA method was based on PATH analysis which showed (posture, activity, tools and handling), the non-neutral posture of trunk, arms and leg issues due to hard jobs of employees. Due to physical jobs, especially in the forest, the health of employees suffers. A study was conducted by (Enez and Nalbantoglu, 2019), to investigate the ergonomic risk factors prevailing in forestry at the step of logging harvesting, skidding and loading of heavy weights. They analyzed the posture of employees while working in forestry and it was statistically concluded that there were significant ergonomics risk factors associated with postures of employees. The rubber tappers have to cut the trees in a way to get the milky fluid which is the natural source of getting rubber. Job of rubber tappers was investigated by (Supaporn Meksawi et al, 2011). They find out the risk factors through questionnaires that extensive musculoskeletal problems as, wrist, arm, lower back, shoulder, legs, neck pain among workers due to the twisting, back bending positions and also due to
the requirements of hard job. In the airline maintenance industry, high risk of injuries is associated with hard jobs. (Hamed Asadi et al, 2019) conducted three kinds of analysis, including subject matrixes, posture and lifting analysis. They collected the required data from 235 sample employees who were involved in 5 kinds or working areas as aviation, repair and overhauling to measure the ergonomics risk factors. Responses from Nordic Musculoskeletal indicated low back pain and aches were the major issue. Knees were associated with high risk in cabin maintenance. Ergonomics interventions are necessary to overcome from risky situations in the aircraft maintenance industry due to tough and hectic jobs.

(Marie–Eve–Chiasson et al, 2014) investigated hard job risk factors and compared the workers with and without suffering musculoskeletal pain before 7 days of data collection. They collected data from employees of three industries as appliances, plastic and tree nursery industries. 473 workers were included in assessment. They concluded significant musculoskeletal pain suffering among workers in both groups. Jobs at construction sites are harder as compared to other industrial jobs. Within the passage of time hard jobs become the reasons of injuries and musculoskeletal disorder in workers. (Nipun D. Nath et al, 2017) conducted a study on construction site workers and found that awkward postures are ergonomic significant risk factors and results in, trunk and shoulder injuries. (Prakash kumar et al, 2016) conducted a study in a small fruit processing unit where workers were engaged in pineapple peeling activities, they explored the ergonomic risk factor associated with these peeling activities in India. RULA was used to assess the ergonomic risk factors and data were collected through questionnaires based interviews to find the prevailing risk factors. Results of study reported, that workers were suffering from the musculoskeletal disorder with mention rates, 41% (shoulder pain), 37% (upper arms pain) and lower back pain (45%). Neck, lower arms, wrists and palms were also indicated issues in RULA analysis. The manual working pineapple peeling contained several risk factors. Study also directed that the situation could be improved by rotation of shoes during work. (Baiduri Widanarko et al, 2014) incorporated a study to assess the ergonomic, environmental, psychosocial and physical factors and they interviewed 3003 workers in New Zealand and took data. Multivariable logistic regression analysis was conducted in this study. Study concluded neck, shoulder, arm, elbows and low back issues among workers.

(Pieter coenen et al, 2012) investigated that mechanical workers were noticed with physical risk factors like lifting, low back pain and body vibrations. (Catarina Nordarden et al, 2008) Employees from rubber manufacturing and plant assembly lines were observed and showed that females influenced more physical hard job risk factors as compared to the male. Hands, elbow, arms, neck, and shoulder pain was assessed more in females as compared to males.

**Organizational Risk Factors**

(Hsin–yi kathy cheng et al, 2012) investigated risk factors related to educators while educating the children, it is important to understand that in early stages how educators manage with risk factors associated with their profession. To analyze the musculoskeletal disorder among educators a questionnaire was developed and analyzed symptoms of lower back pain, shoulder and neck issues. (Bhawana Rathore et al, 2020) investigated about musculoskeletal disorders prevailing among workers of glass art ware. And they studied the Indian glass art–ware industry and through rapid entire body assessment (REBA) data, related to discomfort of employees in glass art–ware industry was collected through questionnaires. They applied multiple logistic models and concluded that there was high prevailing rates of back, thigh and foot pain among glass art ware workers, 2nd the study
showed high rate of risk was associated with posture during the working. Musculoskeletal indications were highly prevalent in the glass art ware industry of India. The hairdressers have to do major work with their arms, hands, fingers and wrist, the position and angles of wrist and arm might be affected at the job place. So to identify the ergonomics risk factors associated with work of hairdressers, (Hsieh-ching Chen et al, 2009) were assessed the wrist angles of 21 hairdressers, for study they divided the sample into 2 groups as male hairdressing experts and female hairdressing experts. 11 numbers from 21 belongs to 1st group and remaining 10 belongs to 2nd group. The activities related to hairdressing are divided into three categories, washing, cutting and hair blowing. During experiments it was observed that the hairdressing of males, takes less time as compared to the hairdressing of a female, so it was indicated that there is a high association of ergonomic risk factors toward the wrist or arm pain.

(Chaikdeng and Suggaravetsiri, 2015) analyzed the ergonomics risk factors involved in dental proceedings during their filling and scaling task. The study included 193 dentists and dental nurses from government hospitals in Thailand. The data was collected from hospitals through surveys. Results showed while performing scaling and filling tasks, ergonomic risk factors are almost 78 % associated. Back pain was the major issue during working. Somehow a combination of three as neck, shoulder and back pain were reported by dentists during scaling and filling tasks. The study suggested that hospitals should provide working tools designed ergonomically at hospitals to fit for the dental working. (Ali Sheikhzadeh et al, 2008) studied the ergonomic risk factors associated with nurses and technicians in operation theaters and working environments, they determined the lower back pain and ankle pain as the major reason of absenteeism at the job place, and simple engineering solutions suggested overcoming the situation. Nordic musculoskeletal questionnaire was designed by (Andrew M.Scuffham et al, 2010) to understand the ergonomic risk factors, which were prevailing in occupation of clinical veterinarians. They collected data from 867 veterinarians in New Zealand. Veterinarians were asked about the presence or absence of musculoskeletal pain. 18% of employees were absent from their jobs due to the musculoskeletal pain, lower-back pain was noted. The awkward hand movement and grip was the major issue of musculoskeletal disorder. The aim of the study conducted by (Iman dianat et al, 2018) was to assess the physical and occupational risk among the surgeons in Iran. Data was collected from 312 surgeons and analyzed the multivariate logistic regression analysis. The results were reported as significant presence of risk factors like, knees, neck, low back and shoulders among surgeons, especially those who work by standing till 5 hours per week or 4 hours per day, were more influenced with these Musculoskeletal disorder issues.

To analyze the risk factors associated with working of nurses, Nordic questionnaire was designed to collect data from Japanese nurses by (Derek R. Smith et al, 2006). 844 questionnaires were completed by respondents and were analyzed by researchers. They concluded more than 70% respondents were claim shoulders, lower-back, neck, and upper back problems in them. The conditions of the dental students, they were trained and educated in the dental environment and many risk factors also associated toward the dental students, so there must be ergonomic preventions adopted by students, (Linda j. Thornton et al, 2004). A study was conducted by (Liyun yang et al, 2020) for the purpose of assessment of risk factors, specifically musculoskeletal disorder faced by surgeons. For the aim the data was collected from 116 cases of surgical specialties. The respondents showed results that surgeons felt pain in neck, upper and lower back, mostly during and after any operation. Musculoskeletal disorder is a common issue among surgeons. (Seyedtaghi Mirmohammadi et al, 2015) conducted a study to identify work related risk factors. They started...
the study to undertake risk factors faced by hospital health care staff, for that from public hospitals, data of 110 respondents was collected and results of study presented the significant relation with neck pain and back pain. (Burnett and campbell–kyureghyan, 2010) incorporated a study to find the risk of injuries and musculoskeletal disorders among medical sonographers, during their work. 86 % of respondents acknowledged upper extremity musculoskeletal pain.

Low back pain was indicated among nursing staff, due to their profession in Taiwan. (Chao-kang Feng et al, 2007). In Estonia occupational usage of computers is increased which results in musculoskeletal disorder (Kristel Oha et al, 2014). The position of hands of surgeons was assessed during laparoscopic instrument use and it was indicated that this position can cause wrist pain. Continuous doing the same work without having rest results in MPD (M.sanchez–Margallo et al, 2010). 400 industrial workers were analyzed through questionnaires and concluded that force exertion, twisting hands and rapid movements of hands, consequence the CTS issues among employees, (Maryam maghsodipour et al, 2008). Special educators were observed with shoulder pain, lower-back pain and wrist pain due to risk factors associated to their types of duties, including diaper changing etc. By using supportive tools at jobs, MPD issues can be minimized, (Hsin–yi kathy cheng et al, 2016). 205 Physiotherapists were observed by (Yesim salik and ayse ozcan et al, 2004) and found lower-back, hand–wrist, shoulder, neck and lower-back pain due to job related risk factors. Through a questionnaire, data was collected from University staff. It was observed they were suffering neck pain due to their profession and the percentage of neck pain was more in female lecturers than male lecturers (T.T.W chiu, 2002). Office workers were observed by (Maaike A et al, 2012). They investigated computer work could lead toward the hand, arms, wrist, shoulders and neck pain issues among employees.

Musculoskeletal Pain Disorder (MPD)
The Musculoskeletal problem is one of the major health issue deals in Ergonomics. Musculoskeletal pain disorder is observed in literature and brings, Trunk, neck pain, shoulder pain, posture, leg pain, arms pain, wrist pain, palm pain, back bent, back pain, lower back pain, foot/ankle pain, knee pain, and physical injuries. These issues occurred through the following ergonomics risk factors.

**Figure 3**
In SLR Critical risk factors association with jobs in %

![Image of a bar graph showing critical risk factors association with jobs in %.]
The above mention risk factors bring various MPD issues that can be seen through the following graphical representation.

**Figure 4**
*Major musculoskeletal issues were identified among employees in literature*

![Graph showing musculoskeletal issues](image)

**Critical Analysis of Literature Review**

The literature is full of various ergonomic risk factors related to jobs, and brings various MPD issues. Employees who are facing this type of risk need proper training and guidelines to overcome the risk associated with their jobs, as if the task is hard there must be a job performing tricks to avoid the physical job risk factors. If employees have to work continuously, there must be 3 to 5 minutes of exercise to relax their joints and to prevent them from locking at the same positions. Studies in literature showed that employees who were guided and trained to perform such hectic jobs showed carelessness, they don’t bother the training and it causes different MPD issues. As literature showed, several risk factors are associated with jobs. A few suggestions are considerable to avoid the discussed issues. Strong and effective communication between the workforce and upper management is considerable as suggested to improve ergonomic situations at jobs (Enez and Nalbantoglu, 2019). Some warm up exercises can minimize the musculoskeletal problems as well as workers friendly hand tools should be arranged for employees to prevent the issues (Ishwarya and rajkumar, 2020). The intervention programs suggested to manage the risk factors (Shuval and Donchin, 2005), (Bhawana Rathore et al, 2020), (Foglemen and lewis, 2002), (Alireza choobineh, 2011). It was suggested to train employees to prevent body injuries and disorders (Hsin-yi kathy cheng et al, 2012), (Supaporn Meksawi et al, 2011). Study suggested that researchers should suggest better working postures to manage the organizational risk factors (T. Sakthi Nagaraj et al, 2019). This burden and risk can be reduced through job rotation (G. Mossa, 2015), (Alena and olga, 2017). (Jeenifer A hess et al, 2004) started a project on the laborers of construction sites, because they had high risk of musculoskeletal injuries. The Basic purpose of this project was to introduce some innovative way to minimize the risk of lower back pain. Employees' motion and movements were recorded while wearing a lumbar motion monitor, during initial use the movement was slightly significant and low back pain was slightly reduced. Engineers should design better production conditions to intervene...
the ergonomics risk factors (Sourabh Kulkarni, 2019).

Conclusion
The aim of this paper is to review the literature to identify the ergonomics risk factors associated with a job and also to know the association between risk factors (organizational, psychosocial, physical and biomechanical risk factors) and work related musculoskeletal problems. The systematic literature review indicates that there are 4 risk factors associated to various jobs, out of 103 studies, 30% studies in systematic literature indicated biomechanical risk factors associated with MPD. 30% of studies indicate psychosocial risk factors are causes of MPD issues, 14% of studies showed MPD issue is caused by hard job related risk factors and 26% out of 103 studies directs that MPD issues are due to organizational risk factors. Major Musculoskeletal issues including, neck pain, shoulder’s pain, back bent, back pain, CTD, palm pain, wrist pain, arms pain, knee pain and foot pain. These issues were arises as a result of job associated risk factors. Researchers suggest there must be ergonomic interventions to prevent employees from MPD issues. There must be provision of proper training and guidelines to employees, to overcome from job associated risk factors.

References
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Mossa, G., Boenzi, F., Digiesi, S., Mummolo, G., & Romano, V. A. (2016). Productivity and


