



## Perils of Tight Clothing: A Survey Report

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### ABSTRACT

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**Background:** Physical activity is defined as body movement produced by striated muscle that substantially increase utilization of energy, has numerous advantageous effect on the health. The level of physical activity influenced by different factors, include modifiable and non-modifiable factors. Non-modifiable factors include age, family history, sex and ethnicity. The modifiable factors include sedentary life style, lack of time, injury, body mass composition, socioeconomic level, leisure time and posture.

**Objective:** To evaluate the effects of tight clothing on posture and physical activity, types of most frequent tight dress used by the participants, their effect on ADLs, problems caused by it & regions most commonly affected and plan for future.

**Methods:** In this Cross-sectional study the convenient sampling technique was used. Females with the ages between 15 years to 55 years was included and those having physical disability and those diagnosed with medical problems were excluded. The Questionnaire was used to collect data after Consent was obtained from 186 participants. The SPSS was used for the statistical analysis.

**Result:** The 80.6% (n=150) had low level of PA and 97.8% (n=182) had bad posture. Frequent used of tight clothing include underwear (99.5%, n=185) shirt (73.1%, n=136), jeans (43.5%, n=81), belt (90.3%, n=168), shoes (76.9%, n=143), sports gloves (95.7% n=178), bracelet (95.7%, n=178) and bra 98.4% (n=183)

The most effected region was leg (n=102, 54.8%), low back (22.0%, n=41), foot (N=42, 22.6%), thigh (n=64, 34.4%), back (13.4%, n=25)

Pain (65.6%, n=122), itching (46.2%, n=86), heaviness (41.9%, n=78), and numbness (18.8%, n=35) were the main problems observed due to tight clothing.

The tight dress disturbs their ADLs (78.5%, n=146) the plan for change tight dressing (n=110,59%) also planning to used safety measure (n=137,73%)

**Conclusion:** The tight dressing affects the physical activity and posture, leads to several problems in different regions, results in trouble while performing different physical activities. There is need to educate people about the use of proper and comfortable dress in daily routine and alert people about perils of tight dressing regarding posture and physical activity through social media, seminars and lectures.

## Introduction

Physical activity is defined as body movement produced by striated muscle that substantially increase utilization of energy, has numerous advantageous effect on the health (WHO, 2020). In Pakistan the prevalence of inactivity is 60.1% among 534 adults (Khuwaja and Kadir, 2010). The level of physical activity influenced by different factors, include modifiable and non-modifiable factors. Non-modifiable factors include age, family history, sex and ethnicity. The modifiable factors include sedentary life style, lack of time, injury. body mass composition, socioeconomic level, leisure time and posture (Bauman, *et al.*, 2012).

Posture is acquired as a consequence of many muscle worked in a coordination used to maintain stability. The postural concepts are based on the series of chains which rely on the mechanic of the body in which complications can develop anywhere along the body. The disturbance in the chain can lead to abnormality below or above that junction. This generates more strain on the supportive structures. Additionally, persisting postural faults can produce aches, distress or disability (Gurney, et al., 2017).

The new technology and advancement in the field of fashion are introduced in this modern era, the fashion

industry develops different types of product for the consumers. now days the tight fitted dressing is popular worldwide and preferred by the consumers to express the personality, self-esteem, attractiveness, maintaining their status in order to retaining the social impact in the society. However according to the findings by the experts, the tight dressing has many adverse effects on the body and causes various problems in different region of the body (Kim and Yoo, 2016).

Now days the trending and fashion of tight jean become famous. A previous study showed that thigh jean may lead to injury which reduce circulation result in decrease in temperature of skin in the pelvic region so, it has great impact to the person body (Yoo and Yoo, 2012). Yoo and Park investigate that tight waist belt lead to decrease and limit the forward movement of the center of gravity leads to increase pelvic angle as are result of compensation (Park and Yoo, 2014).

A study showed that wearing of tight necktie lead decrease cervical range of motion, in consequence of limited mobility and physical variation in the tissue and muscle of shoulder and neck. Another study showed that tight outfits decrease the movements around shoulder region and lead to major effect on the specific muscular

arrangement in the thoracic and cervical region of spine (Yoo, *et al.*, 2011).

The study showed the fashion of tight high heeled shoes is become very popular, the energy expenditure and biomechanics of lower extremity vary in with high heel shoes (Schoffl and Kupper, 2013). The effects of type , height of shoe heels on the body have revealed that the lower extremity mechanics and the energy cost differ with heel height and old shoes also had greater impact on biomechanics of foot (Lopez-Lopez *et al.*, 2016; Foster *et al.*, 2012)

According to author's information there is no study directed on the effect of tight clothing on level of physical activity that may demonstrate that whether the physical activity and physical activity improving therapies/techniques are affected by tight clothing or not. Hence it is necessary to evaluate tight clothing effect on level of physical activity and outcome of physical therapy interventions. The study aim is to investigate the effects of tight clothing on posture and physical activity. The study has several objectives given below

- Tight clothing leads to difficulty in different activities (like walking, sitting, lying, jogging, working and ADLs). 3. Tight dress (like jeans, shirts, shoes, belt, sports gloves, bracelet, bra and underwear) affects physical activity and posture.

- Tight dress leads to different problems (like numbness, tenderness, pain, itching, heaviness, increased heart rate and increased respiratory rate).
- Regions affected (like leg, foot, thigh, hip, hand, low back, abdomen, neck, arm, chest and back) by Tight dress.
- Planning for future regarding tight clothing

## Methods

In this Cross-sectional study the convenient sampling technique was used. Females (married and unmarried) with the ages between 15 years to 55 years were educated about wearing tight clothes while patients having physical disability and those diagnosed with medical problems like obesity, HTN, heart diseases and any infection were excluded.

Questionnaire derived from literature including open and close type questions, was used to obtain the data and was administered in English. Questionnaire was hand over to the participants of different areas and was filled out after agreement of consent form the participants. Trans theoretical model was used for future planning. This tool was validated through focused group discussion of 5 experts in pilot study. SPSS was used for the statistical

analysis and excel for graphs. An ethical approval was obtained from departmental ethical review committee of the AJ&K University. Participant fill the consent and

participate in the study who refused not forced to fill the questionnaire all the participant knows about the study objective.

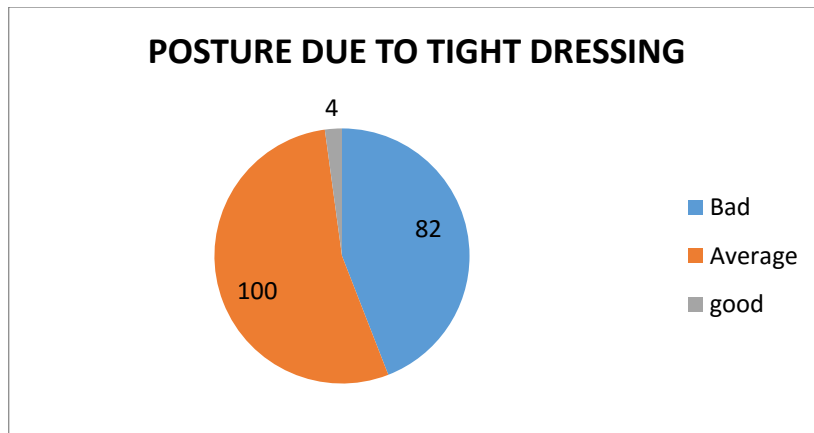
**Result and Discussion**

The result in table showed that Female gender with age range from 15 to 55 year participate in this study majority of them was 25-35-year-old (161), and most of them was undergraduate (140), majority work 6-10 hrs. (106) and they take rest 2

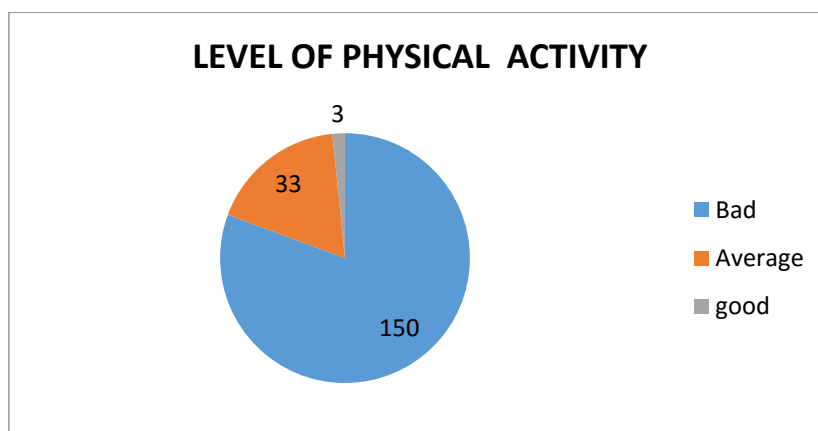
hrs. daily (119). Majority said they feel discomfort while wearing tight clothing (100). And the tight dress disturbs their ADLs (116) the plan for change tight dressing (110) also planning to used safety measure (137)

**Table 1. Demographical Detail**

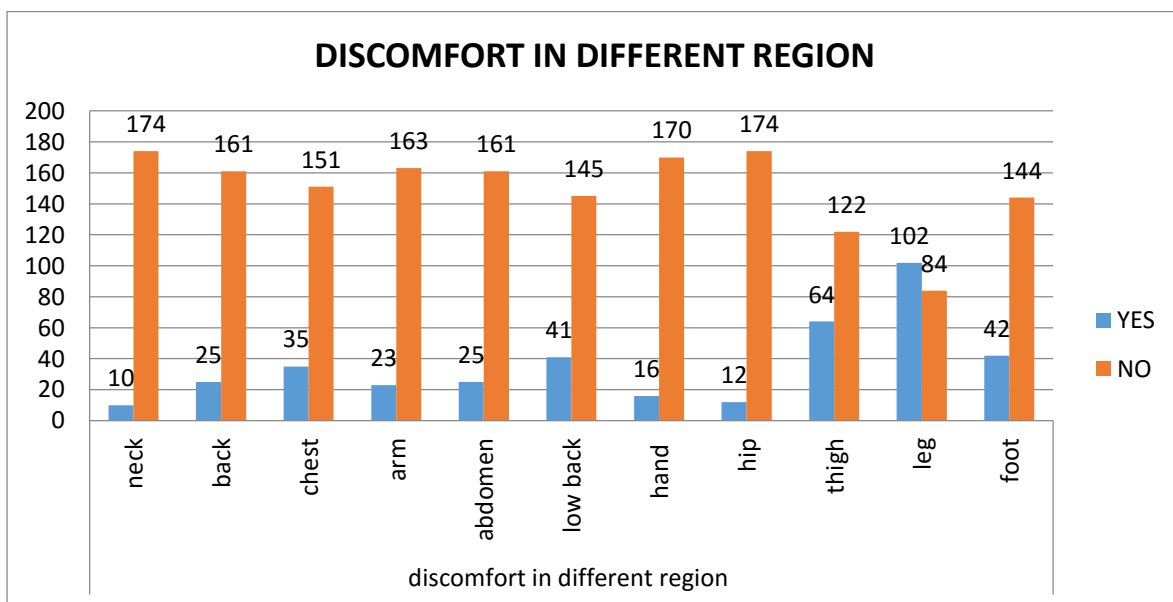
Demographical variable		
AGE	15-25 yrs.	24
	25-35 yrs.	161
	35-55 yrs.	1
EDUCATION	Undergraduate	140
	Graduate	34
	Postgraduate	12
WORKING HOURS	<6 hrs.	73
	6-10 hrs.	106
	>10 hrs.	7
REST HOUR AFTER WORK	<1 hrs.	3
	1 hrs.	59
	2 hrs.	119
	3 hrs.	5
WEARING TIGHT DRESS FEEL COMFORTABLE DURING WORK	no	100
	some what	24
	yes	62
TIGHT DRESS DISTURBS ACTIVITY OF DAILY LIVING	yes	116
	some what	30
	no	40
PLANNING FOR CHANGE TIGHT DRESSING	yes	110
	no	76
PLANNING FOR SAFETY MEASURE	yes	137
	no	49



**Figure 1. Level of posture**



**Figure 2. Level of physical activity**



**Figure 3. Discomfort in different region**

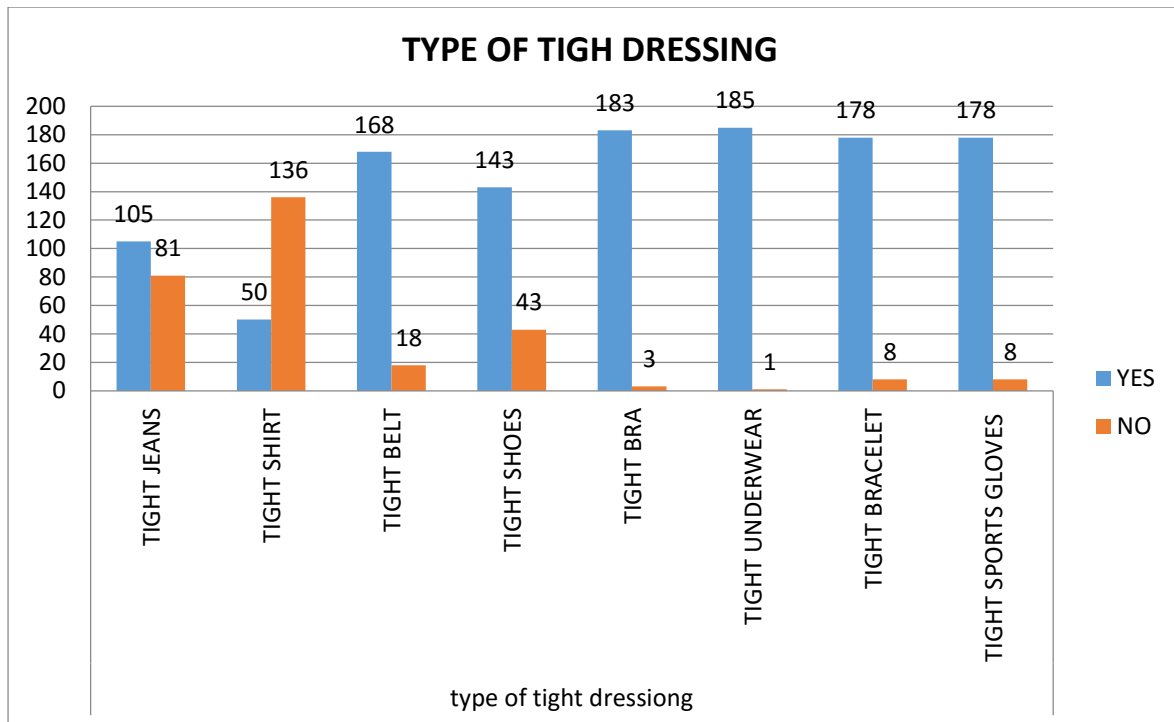


Figure 4. Type of tight dressing

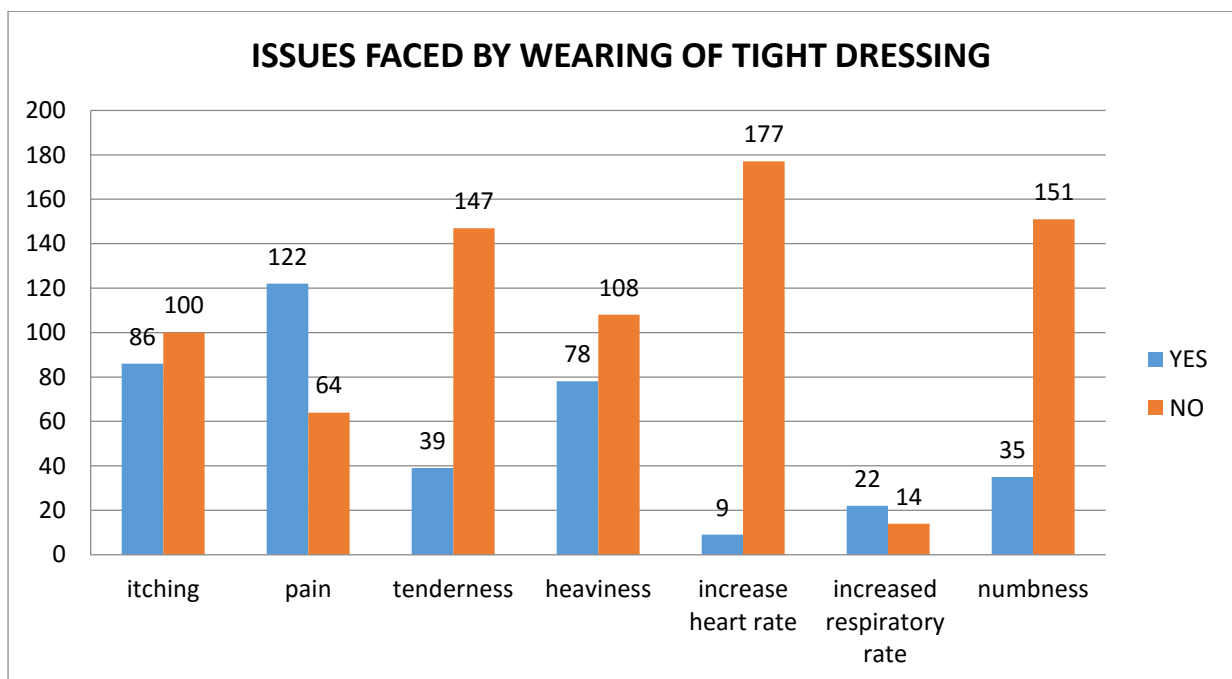


Figure 5. Issue faced by wearing tight of clothing

The result in figure 1 to 5 showed that 80.6% (n=150) had low level of physical activity and 97.8% (n=182) had bad posture. The most effected region was leg

(n=102, 54.8%), low back (22.0%, n=41), foot (N=42, 22.6%), thigh (n=64, 34.4%), back (13.4%, n=25) due to Frequent used of tight clothing include underwear (99.5%,

n=185) shirt (73.1%, n=136), jeans (43.5%, n=81), belt (90.3%, n=168), shoes (76.9%, n=143), sports gloves (95.7% n=178), bracelet (95.7%, n=178) and bra 98.4% (n=183). The Pain (65.6%, n=122), itching (46.2%, n=86), heaviness (41.9%, n=78), and numbness (18.8%, n=35) were the main problems observed due to tight clothing.

Wearing tight clothing cause postural in balance and decrease the physical activity the result revealed that the 80.6% (n=150) Participant had bad level of physical activity and 97.8% (n=182) Had bad posture most previous studies tell that the physical activity is impossible with tight dressing it also impacts on posture (Gurney, et al., 2017)

Result showed that Due to tight dressing the 186 participants 5.4% (n=10) had neck pain due to tight shirts. one study reported that necktie affects the neck in different ways; it may lead decrease cervical range of motion, in consequence of limited mobility and physical variation in the tissue and muscle of shoulder and neck in those who wear it compared to without it (Yoo, et al., 2011).

In current study 18.8% (n=35) had chest discomfort in 73.1% (n=136) participants those who wear tight shirts. This study has finding similar to following studies related to physical activity, tight shirt leads to decrease physical activity in majority of participant. The result of one

study directed by Merrie MacHoseErik indicated that tight clothing significantly interfere with diaphragmatic breathing. Clothing can directly affect the physiology (Na, 2015). Another study showed that if wearing tight-jacket conditions compared with the general-jacket conditions the muscle of serratus anterior and lower trapezius and muscle activity limited and lead to decrease normal scapular movements lead to pain and discomfort in tight jacket condition (Kim and Yoo, 2016).

The current study result showed that out of 99.5% (n=185) participant who wear tight underwear, 13.4% (n=25) had sensation of uneasiness in abdomen, 6.5% (n=12) had uneasiness in hip. A study analyzed the underwear presenting feature of discomfort with negative effect on women health suggest that produce underwear in a fashion that preserved health and well-being (Alves, et al., 2013).

Result showed that the tight belt (n=168) caused discomfort in abdomen in 13.4% (n=25). The discomfort in abdomen leads to decrease in physical activity. A relation between tight belt and physical activity showed that 150 participants had a bad level of physical activity among them 134 wear tight belt, previous study showed that During tight belt condition in sitting position the anterior pelvic tilt angle markedly increased in compression of no belt condition (Park and Yoo, 2014).

The result shows that those who wear tight jeans (43.5%, n=81) had sensation of discomfort in abdomen (13.4%, n=25), hip (6.5%, n=12), thigh (34.4%, n=64) and leg (54.8%, n=102). In relation of physical activity and tight jeans 150 person had bad level of physical activity among them 61 people wear tight jeans that reduce the physical activity. The result of current study had some findings similar with following studies; The first study reported that the tight jean leads to injury due to decrease circulation decrease skin temperature in pelvic area and patients not involve in horse riding, skiing or outdoor activity according to Weismann and Larsen (Chen, 2018). The second study showed that restrictive trouser lead to discomfort and limit the muscle activity of trunk and spine movement (Eungpinichpong, et al., 2013). The third study showed tight compression shorts is used to wear lead to decrease circulation deep and superficial region of thigh during recovering from the high physical activity (Sperlich, et al., 2013). The fourth study reported that due to tight jeans the angle of lumber flexion markedly increased and angle of hip flexion decreased when compared with wearing of general jean, it result in low back musculoskeletal problems (Park and Yoo, 2014).

The results report that 76.9% (n=143) participants wear tight shoes among them 22.6% (n=42) presented foot discomfort. In

relation to the physical activity 150 person had bad level of physical activity among them 120 wear tight shoes and 33 had an average level of physical activity among them 21 persons also wear tight shoes. Several studies had parallel result to the current study result in different contest. A study indicated inappropriate footwear change the biomechanics of foot the and planter pressure lead to musculoskeletal disorder of foot (Ikpeze, et al., 2015). The previous study expressed that the chronic use of tight climbing shoes lead to overstrain injuries (Schoffl and Kupper, 2013). A study showed that Inadequate shoe size has a markedly negative effect on quality of life related to foot health (Lopez-Lopez, et al., 2016).

Regarding tight bra, 98.4% (n=183) wear it amongst 18.8% (n=35) had chest discomfort. Maximum participants (37.6%, n=70) had mild annoying pain. Previous studies showed that The ill-fitting bra contribute to pain, discomfort, pressure, impaired posture and musculoskeletal problem of upper limb, neck and back due to inadequate breast support (Spencer, et al., 2020).

No such study is conducted in this region about tight dressing. Sample size was 186. It provides platform for further studies. Limitation and recommendation: This study is conducted in one district of AJK and it is recommended that for



generalized result it should be carried out on large sample in different district of AJK.

The RCT carried out about the tight dressing and posture analysis on segment wise

### Conclusion

Tight dressing affects the physical activity and posture and leads to several problems in different regions. Due to tight dressing ADLs was restricted. There is need to educate people regarding use of proper and comfortable dress in routine and alert people about perils of tight dressing regarding posture and physical activity through social media, seminars and lectures.

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