International Journal of Research in Orthopaedics
Upadhyay G et al. Int J Res Orthop. 2023 Mar;9(2):340-344
http://www.ijoro.org

DOI: https://dx.doi.org/10.18203/issn.2455-4510.IntJResOrthop20230461

Original Research Article

Comparative study between choices of preoperative and post operative dress wear among orthopedics patients

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Received: 07 November 2022
Revised: 31 January 2023
Accepted: 04 February 2023

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ABSTRACT

Background: Clothes are identity of an individual. A monk, a priest, a doctor, a lawyer etc. all can be identified by clothing. But can we identify preoperative and postoperative orthopedics patient simply by difference in clothing? Can we evaluate the reasons for this difference in clothing mainly due to hide surgical scar or may be due to comfort fit or may be due to compensation of gait abnormalities etc.
Methods: The study was conducted at Maharaja Agrasen medical college, India with a population of 1000 OPD and indoor patient for a period of 6 months from January 2022 to June 2022, with data collection and compilation for another 3 months. Our study is an observational retrospective study which discovers where pre trauma preference is for skin tight clothing like jeans, t shirt for men and skirt for girls, post trauma post operative preference shifts to loose and formal clothes like full sleeves shirt, formal pant, pajama, lungi, dhoti for men and full length skirt for girl and saree for women.
Results: Causes enlisted for such clothing was hiding surgical scar (80%), comfortable fitting (10%), to hide gait abnormalities (7%), limb length discrepancies (2%), miscellaneous (1%).
Conclusions: We claim to be first in literature to have thought and research on this wonderful topic. We claim to devise new system of surgical and non-surgical wear in post operative patients with our research. We also bring out reason for such difference in clothing and work closely with our in-house patient for preference in clothing.

Keywords: Surgical attire, Preoperative clothing, Postoperative clothing, Surgical scar

INTRODUCTION

Purposes and importance of clothing

Covering the body is the principle among other purposes of clothing. Besides, it helps to make you feel more attractive, and to communicate with others. People wear clothes for many different reasons. Some of these reasons are physical. You wear clothes for comfort and protection. Others are for psychological and social purposes of clothing. Clothes give you self-confidence and express your personality. Clothes also help you identify with other people.[1]

Importance of clothes

Protection, safety, sanitation, modesty, identification, uniforms, styles, colors, insignias status and decoration, the importance of clothing is so vital, that ASA has given an advisory regarding operative clothing, a few lines from their original article are listed below with due the permission.

"Based upon evidence available as of April 2019, the committee and the advisory group put forth the following ASA guidelines for surgical attire.[2]

Process recommendations

The facility's surgical attire policy should be based upon scientific evidence and expert opinion. Evidence should be relevant, free from bias, and drawn from all available information.

Local infection control policy should be set by the health care professionals who provide patient care within the setting to which the policies apply (e.g., for policies affecting practices within the operating room, nurses, surgical technicians, surgeons, and anesthesiologists should share representation in the group setting the policy). Outside professional consultation should be sought as necessary (e.g., infectious disease professionals).[3]

CDC recommendations for prevention of surgical site infections

The 2017 CDC recommendations for prevention of surgical site infections (SSI), based upon information available through April 2014, did not address surgical attire. The supplemental material states "that many of the 1999 strong recommendations should be re-emphasized as accepted practice for preventing SSI."[4]

The objectives of this study are to devise new system of surgical and non-surgical wear in post operative patients. We also bring out reason for such difference in clothing and work closely with our in-house patient for preference in clothing.[6]

METHODS

The study was conducted at Maharaja Agrasen medical college, India with a population of 1000 OPD and indoor patient for a period of 6 months from January 2022 to June 2022, with data collection and compilation for another 3 months. The study is an observational retrospective study design. Statistical tool used for analysis was SPSS. Total number of patients included in the study is 1000.

Consent of every patient and relative was taken, ethical committee clearance approved and data was compiled. Patient in OPD visit were marked in preoperative and postoperative period. Once admitted close observation revealed alteration and change in choice of dress wear. Our study discovers where pre trauma preference is for skin tight clothing like jeans, T-shirt for men and skirt for girls, post trauma preference shifts to loose and formal clothes like full sleeves shirt, formal pant, pajama, lungi, dhoti for men and saree, full length skirt for girl and saree for women.[23]

Inclusion criteria

Skeletally mature patients, mentally sound patients, mobilizing patients were included in the study.

Exclusion criteria

Mentally retarded patient, skeletally immature patients, Bed ridden patient's non-compliant patients were excluded.

Sample size

It was taken on the patient who was admitted in ward and had undergone a surgical procedure in the medical college. We selected all postoperative patient to check their choice of dress wear, 1000 patients were taken for the study.[7-9]

Duration of study

Six months of study from January to June 2022, with data compilation and analysis for another 3 months.

Place of study

The study carried out at Maharaja Agrasen medical college, India. The study was conducted at Maharaja Agrasen medical college, India with a population of 1000 OPD and indoor patient for a period of 6 months from January 2022 to June 2022, with data collection and compilation for another 3 months.

The study is an observational retrospective study design. Statistical tool used for analysis was SPSS.

RESULTS

Causes enlisted for such clothing was hiding surgical scar (80%), comfortable fitting (10%), to hide gait abnormalities (7%), limb length dis-creparencies (2%), miscellaneous (1%).[10]

A total of 588 males and 412 females participated in the study after due consent and ethical clearance.

For age group 252 patients were less than 20 years of age,182 patients were between 20-40 years of age,400 patients were in age group of 40-60 years and 176 patients were senior citizen with more than 60 years of age.

For operative treatment 492 patients had undergone upper limb surgery and 508 patients underwent lower limb surgery.

For dressing, 492 patients wore loose shirt or upper garment (blowse), 200 pajama, 130 lungi, 32 dhoti, 150 saree and 150 long ankle length skirts.

Despite a shift toward more loose clothing in post operative patients' cases, there were more SSIs post-implementation (33 vs 30 [1%]; p=0.95). Overall, SSI increased with wound class: 0.6%, 0.9%, 2.3%, and 3.8% in clean, clean-contaminated, contaminated, and infected cases, respectively despite change in clothing. Limiting the review of preoperative wear or post operative clothing,

incisional SSIs increased from 0.7% (20 of 2,754) to 0.8% (24 of 3,115) (p=0.85). A multivariable analysis showed that implementation of these policies was not associated with decreased SSIs (odds ratio 1.2; 95% CI=0.70 to 1.96; p=0.56). The largest predictors of SSIs were preoperative infection, operative time >75th percentile, open wounds, and dirty/contaminated wounds.

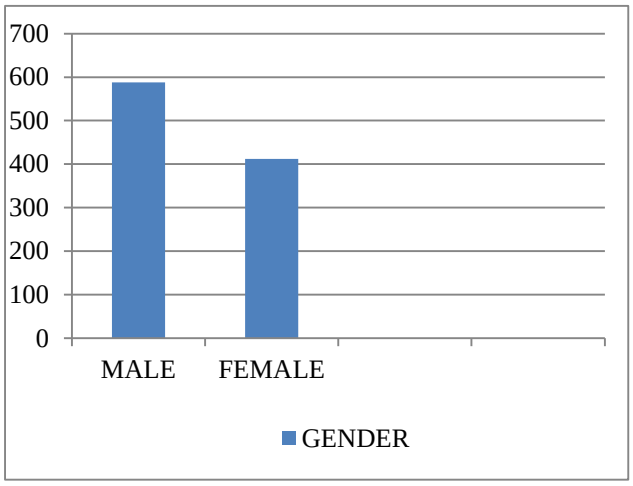

Figure 1: Gender wise patient segregation.

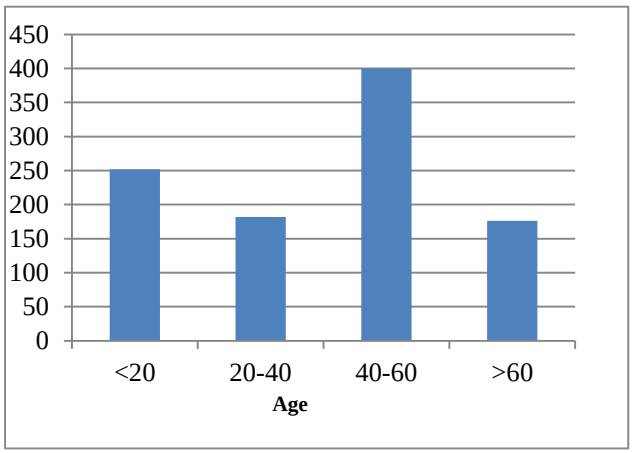

Figure 2: Age wise patient segregation.

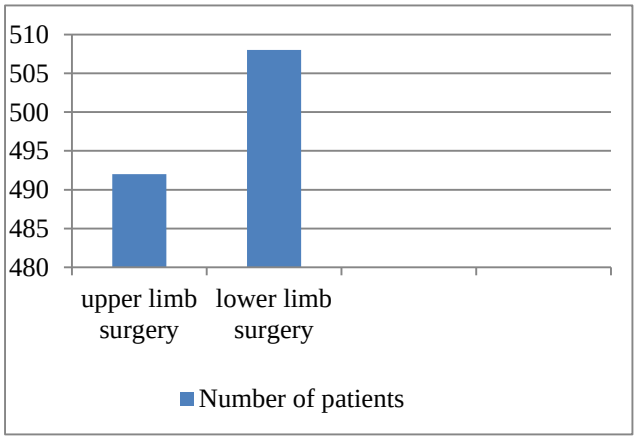

Figure 3: Surgery wise patient segregation.

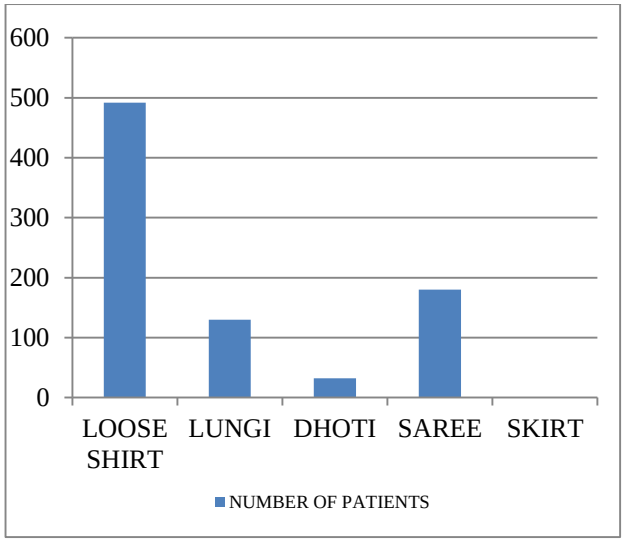

Figure 4: Clothing wise segregation.

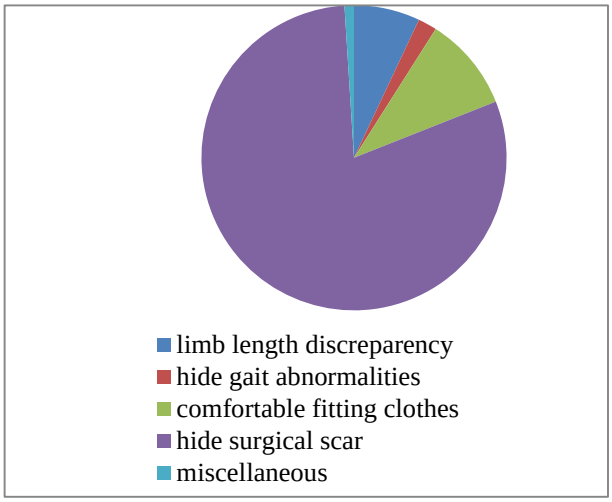

Figure 5: Causes enlisted for such difference in clothing.[11,12]

Figure 6: Ten years old with invisible scar still prefers full lower limb coverage.

Figure 7: Application of cosmetic articles to make scar invisible.

Figure 8: Briefs changed to sorts to hide surgical scar.

DISCUSSION

Patel et al conducted a study to determine the effectiveness of home laundering in removing *Staphylococcus aureus* from scrub attire however in our study no such interpretation were made.[18] Al-Benna conducted a literature review to explore home laundering of scrub attire and found there was little scientific evidence that facility laundering was better than home, however in our study we found no significant risk to SSI due to alteration in preoperative and postoperative clothing's.[19] Post-operative wound infections develop in approximately 2-5% of all patients after orthopedic surgery.[13] After urinary tract infection and pneumonia, such wound infections (15%) are the third most frequent type of hospital-acquired infection. In this review we summarize all proven and unproven hygiene measures available in orthopedics, giving special attention to those implemented with the aim of preventing and controlling postoperative wound infections. Routine application only of hygiene procedures of proven efficacy will be an important contribution to economic and ecological quality assurance in hospital.[14,15]

Limitations

Sampling from only one subset of population, i.e., traditional north Indian patients, multicenter, multihospital trail and study is recommended.

CONCLUSION

Dress makes one identity. If we can use the modality of dress selection as a tool to decide the operative intervention done on the limb of an individual, it will be a great assessment tool.

It will serve as an important tool in patient segregation in busy OPD. It will act as a great tool to make surgeon focus upon scar less technique of surgery. It will be a great tool to make surgeon, perform surgical technique with minimal deformity, minimal limb length deformity.

As this study appears to be first of its kind and form, we advocate a larger multi-centre trial for better understanding of the research topic.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

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Cite this article as: Upadhyay G, Kumar A, Rao V, Brar S. Comparative study between choices of preoperative and post operative dress wear among orthopedics patients. Int J Res Orthop 2023;9:340-4.