CHAPTER : 3

MATERIALS & METHODS

Fashion has considerable influence on standards of posture. Human figures vary a great deal in size and shape. A pleasing figure demands a smooth line over the hips. Another important factor is that a dress design looks goods only when it is consistent with the figure of the wearer. The purpose of this study was to design with introducing fullness techniques in frock style kameez for a wide-hip figure to reduce the figure problem.

The present study was carried out in the following steps:-

3.1 : Designing frock style kameez suitable for a wide hip figure.

3.2 : Opinion on the designed kameez.

3.3 : Drafting, preliminary fitting test and adaptation of the basic block.

3.4 : Construction of ten selected kameez.

3.5 : Opinion on the constructed kameez for minimizing figure problem.
3.1: Designing frock style kameez suitable for a wide hip figure:

The designing of kameez for a wide hip person with the introduction of various techniques of fullness was based on the investigator's personal judgement and the review of literature. From the review of literature the investigator learned that there are ten different techniques by which fullness can be introduced.

Ten designs were sketched for each of the ten techniques (Appendix No. 1).

In the first technique darts were used for the introduction of fullness. Out of the ten designs sketched, 5 designs were such in which fullness was introduced below the waist line, in one design fullness was introduced at the armhole line and in remaining 4 designs at the chest level. The second technique was gathers, in which 8 designs had fullness at the waist line, and one design had fullness at the arm-hole level and one at the arm hole level and waist line level.

In the third technique pleats were used for the introduction of fullness, out of the ten designs sketched, 9 designs were such in which fullness was introduced below the waist line and in one design at the
chest level. The fourth technique was tucks, in this 3 designs had fullness below the waist line, 5 designs had fullness between waist line and hip line and in remaining two designs, fullness was below the hip line level. The fifth technique was princess line, in which 3-designs had fullness at the armhole to the hemline, 4 designs from shoulder line to hem line, in 2 designs from neck line to hem line and in one design from shoulder and armhole to hemline. In the sixth technique, which was smocking, all ten designs had fullness at the waist line. The seventh technique was godets, in which 9 designs had fullness below waist line and in one design from mid neck line and waist line. The eight technique was Umbrella, in which 5 designs had fullness below waist line, in 4 designs at the armhole, and in one design at the neck line.

The ninth technique was shirring, in which all ten designs had fullness below waist line. In the tenth technique, which was A-Line 5 designs had fullness at the armhole and other 5 designs below waist line.

3.2: Opining on the designed kameez:

Preferences of fifty girls were taken on the designs that were sketched by the investigator. For the
selection of the designs a questionnaire (Appendix No. 2) was prepared along with charts with the kameez designs. One chart for each category was made with ten designs of kameez in each chart. Preference of total fifty respondents was taken; 25 respondents were final year under graduate girls from textiles and clothing department of S.M. Patel college of Home Science and 25 respondents were post-graduate girls from faculty of home-science, S.P. University.

The objectives of the study were explained to the respondents and the charts were displayed. The respondents were given the questionnaire and were asked to give a rank in order of preference beginning with the kameez they liked best to the kameez they liked least. In the questionnaire the respondents were also asked to give preference for material, fabric design, color and texture.

The ranking procedure was used to analyse the responses got from the questionnaire.

3.3: Drafting, preliminary fitting test and adaptation of the basic block :-

Drafting of the kameez was taken from "Zarapkar system of cutting" By K.R. Zarapkar and A.K. Zarapkar.
It was as follows:-

Front : (Plate No.1)

Square lines from 0, fold at 4-0

1-0 = One - eight chest plus 6.5 Cms. (2 1/2"")

2-0 = Waist length plus 2 Cms. (3/4"")

3-2 = 18 Cms. (7"") for seat line

4-0 = full length plus 2 Cms. (3/4"")

Square out from all these points

5-0 = One - twelfth chest plus 1 Cms. (1/4"") or to taste

6-0 = One - eight chest, or to taste

Shape neck 6-5

7-0 = Shoulder plus 1 Cms. (1/4"")

Square drawn from 7 to 8

9-7 = 2.5 Cms. (1"")

Join 5-9

10-8 = nearly 2.5 Cms. (1"")

11-1 = One - fourth chest plus 4 Cms. (1 1/2"")

Shape scye 9-10-11

Square down from 11 to 12

13-12 = 2 Cms. (3/4"")

14-3 = One - fourth seat plus 4 Cms. (1 1/2"")

15-4 = One - fourth seat plus 5 Cms (2"")

Shape side - seam 11-13-14-15

17-11 = One - eight chest plus 1.5 Cms. (1/2"")
Darts :-

16-2 = One-twelfth chest plus 1.5 Cms. (1/2")
Take 2 Cms. (3/4") dart at 16, of length one-sixth chest on both the sides.
Take 2 Cms. (3/4") dart at 17, in the direction of bust.

Back :- (Plate No. 1)

Square lines form 0, fold at 4-0
1.0 = One-eights chest plus 6.5 Cms. (2 1/2")
2-0 = Waist length
3-2 = 18 Cms. (7") for seat line
4-0 = Full length
Square out form these points
5-0 = Same as 5 to 0 of front
6-0 = 2.5 to 4 Cms. (1" to 1 1/2")
Shape neck 6-5
Except 10, the proportions of points 7 to 16 are the same like front
Join 5-9
Shape scye 9-10-11
Take 2 Cms. (3/4") dart at 16
Keep 4 to 5 Cms. (1 1/2" to 2") inturns at 4-15 and 14-15 and for front and back
Keep side opening at 15-14
Sleeve :-(Plate No. 1)

Square line from 0, fold at 2-0

1-0 = One-eighth chest plus 6.5 Cms. (2 1/2")

2-0 = Sleeve length plus 1 Cms (1/4")

3-2 = Same as 1 to 0

Join 3-1

4-1 = One-eighth chest

5-0 = 2.5 Cms. (1")

Join 4-5

6 is midway 4 to 5

7-6 = 2 Cms. (3/4")

Shape back-side 4-7-5-0 as shown

Square up for 4 to 8

8-4 = 5 Cms. (2") for ladies garments and 4 Cms. (1 1/2") for girls garments.

Join 8-5

Taking 1 Cms. (1/4") above point 4,

Shape front-side 4-8-0

9-2 = half sleeve round plus 1.5 Cms. (1/2")

Join and shape 4-9

Keep 3 Cms. (1 1/4") inturns at 9-2

Keep 2 Cms. (3/4") inlays at 9-4
PLATE. NO: - 1

Drafting of Kameez.

Scale - 1:60
Measurement of selected model:

- Round Waist: 56 Cms. (22.4"")
- Round Hip: 92 Cms. (36.2"")
- Round Chest: 76 Cms. (30"")
- Full length: 99 Cms.
- Waist length: 38 Cms.
- Shoulder width: 38 Cms.
- Sleeve length: 14 Cms.
- Sleeve width: 22 Cms.

According to the measurements, a basic block was made for preliminary fitting test.

The following changes for adaptation were done in the block:

- 7-0 = Shoulder to shoulder
- 11-1 = One-fourth round chest plus 2.5 Cms.
- 14-2 = One-fourth round hip plus 2.5 Cms.
- 15-4 = One-fourth round hip plus 3 Cms.

The following changes for adaptation were done in the sleeve:

The brown paper was folded & the basic sleeve was placed as shown in plate No. 2, fig. 3.
PLATE. NO: - 2
Adaptation of basic drafting of Kameez.

Fig: 1
Fig: 2
Fig: 3
10-20 = 45 Cms.
11-0 = 5 Cms.
11-10 = 5 Cms.
12-13 = 12 Cms.
Join 10 - 11 - 12 - 13 - 4
Shape 10 - 4

0-10 = 5 Cms.
10-11 = 5 Cms.
10-12 = 45 Cms. Straightline
12-13 = 12 Cms.
Join 4-13
Shape 11 to 4

Drafting & construction of salwar :- (Plate No.3)

Square Line from 0, fold at 2-0
1-0 = 15 Cms.
2-0 = 78 Cms.
Square out from all these points
3-0 = 43 Cms.
4-3 = 15 Cms.
Square drawn from 0-3-4-1
5-2 = 17 Cms., Join 5-4
6-3 = 5 Cms.
Shape 6-4
PLATE NO: 3

Drafting of Salwar.

Belt

Pauncha
7-8 = 4 Cms.
9-8 = 15 Cms.
Square out from all these points
10-7 = 23 Cms.
11-10 = 4 Cms.
12-11 = 15 Cms.
Square draw from 7-10-12-9
13-14 = 3.5 Cms.
15-13 = according to salwar
15-16 = 3.5 Cms.
Square draw from 13-14-15-16

The brown paper cuttings were placed on the fabric according to grainline and fold; seamline, seam allowances were marked and the fabric was cut.

For stitching, pauncha was first stitched at the bottom. The side seam of the salwar was done. The centre front & centre back seam lines were made and the belt was attached. For the cord, the belt was folded at line 8-10 and stitched.
3.4: Construction of ten selected kameez:

After the preliminary fitting test of basic block, the best selected ten design of kameez were constructed.

I) Construction of kameez with added fullness through darts:

The front basic block 6,4,15,14,13,11,9,5, was first drawn on brown paper. Point 18 was marked below point 2 by 8 Cms. Point 13 and 18 were joined together with a straight line. The brown paper was cut along line 13,18. The lower part was cut in 3 pieces A, B & C to add fullness. These 3 pieces A, B & C were kept on another brown paper. Piece A was kept 2.5 Cms. away from the edge. Between piece A & B and piece B and C a gap of 5 Cms. was left. These were named as a, b, and c respectively. For cutting line 19,20 the gaps a, b & c were closed and the line was cut.

The back of the kameez was also cut like the front, only the neckline and armhole were according to the back basic block.

The brown paper cuttings were placed on the fabric according to grainline and fold; seam line, seam allowances were marked and the fabric was cut.
PLATE NO: -4 (A)

Design with Darts.
PLATE NO.: 4 (B)

Adaptation for design with Darts.

Fig: 1

Fig: 2
For stitching, the darts were first stitched at a, b, c. There were darts on the other half of front & at the back of the garment which were also stitched. The lower part of the kameez was stitched with the upper part and the shoulder line was stitched. Sleeve was attached at the armhole. The neckline was finished with shaped facing. Side Seam was done and hemming at the edge of the garment was done by folding 3 Cms.

II) Construction of kameez with added fullness through gathers:

The front basic block 6,4,15,14,13,11,9,5, was first drawn on brown paper. Point 18 was marked above 2 by 13 Cms., point 19 was marked from 18 by 8 Cms. and point 20 marked below 13 by 8 Cms. Point 18 and 19 were joined together with a straight line and points 19 and 20 given a shape. The brown paper was cut along line 18, 19 & 20. The lower part was cut in 8 pieces A,B,C,D,E,F,G & H to add fullness. These points A,B,C,D,E,F,G & H were kept on another brown paper. Piece A were kept 5 Cms. away from the edge. Between piece A & B, piece B & C, piece C & D, piece D & E, piece E & F, piece F & G, and piece G & H a gap of 2 Cms. was left. These gaps were named as a,b,c,d,e,f,g,
and h respectively. For cutting line 21, 22, 23, 24 the gaps a, b, c, d, e, f, g, & h were closed and the line was cut.

The back of the kameez was also cut like the front only the neckline and armhole were according to the back basic block.

The brown paper cuttings were placed on the fabric according to grainline and fold; seam line, seam allowances were marked and the fabric was cut.

For stitching the gather were first made between points 23 and 24 and points 21 & 22. There were gathers on the other half of front & at the back of the garment which were also stitched. The lower part of the kameez was stitched with the upper part and the shoulder line was stitched, sleeve was attached at the armhole. The neckline was finished with shaped facing. Side seam was done and hemming at the edge of the garment was done by folding 3 Cms.

III) Construction of kameez with added fullness through pleats :-

The front basic block 6, 4, 15, 14, 13, 11, 9, 5 was
(A) Model wearing kameez with Darts

(B) Model wearing kameez with Gathers
PLATE NO: 5 (B)

Adaptation for design with gathers.
PLATE NO: 5 (A)

Design with Gathers.
first drawn on brown paper. The basic block was cut in 6 pieces A, B, C, D, E & F to add fullness. The width of each piece was 3 Cms. These 6 pieces A, B, C, D, E, & F, were kept on another brown paper. Piece A was kept 2 Cms. away from the edge. Between piece A & B, piece B & C, piece C & D, piece D & E, piece E & F, a gap of 4 Cms. was left. These gaps were named as a, b, c, d, e, & f respectively. For cutting line 6, 5, 9 the gaps a, b, c, d, e, & f were closed and the line was cut.

The back of the kameez was also cut like the front only the neckline and armhole were according to the basic block.

The brown paper cuttings were placed on the fabric according to grainline and fold; seam line, seam allowances were marked and the fabric was cut.

For stitching the pleats were first stitched at a, b, c, d, e & f. There were pleats on the other half of front & at the back of the garment which were also stitched. Sleeve was attached at the armhole. The neckline was finished with shaped facing. Side seam was done and hemming at the edge of the garment was done by folding 3 Cms.
PLATE NO: 6 (A)

Design with Pleats.
PLATE NO: 6 (B)

Adaptation for design with Pleats.
PLATE NO: 6 (c)

Adaptation for design with Pleats.
IV) Construction of kameez with added fullness through tucks:

First the fabric was folded double by matching both the selvedges. From the fold line a line was drawn at a distance of 7 Cms. Pin tucks were made using all the material between this line and the selvedge. Similarly for the other half of the fabric pin tucks were made. The fabric for the back was also prepared in the same way.

The front and back basic block 6,4,15,14,13,11,9,5 was first drawn on fabric with pin tucks and keeping required seam allowance it was cut.

The shoulder line was stitched and sleeve was attached at the armhole. The neckline was finished with shaped facing. Side seam was done, hemming at the edge of the garment was done by folding 3 Cms.

V) Construction of kameez with added fullness through princess Line:

The front basic block 6,4,15,11,14,13,11,9,5 was first drawn on brown paper. In the front the armhole was divided into 2 darts and the waistline dart was also
Design with Tucks.
(A) Model wearing kameez with Pleats

(B) Model wearing kameez with Tucks
divided into two. The armhole darts & waistline darts were joined with a smooth curve. Thus three pieces A, B, & C were obtained. Similarly for the back the waistline dart was divided into two and two lines were drawn from the armhole which were given smooth curves and joined with the waistline dart. Thus for the back also three pieces were obtained.

The brown paper cutting was placed on the fabric according to grainline and fold; seam line, seam allowances were marked and the fabric was cut.

For stitching, first stitched A, B, and C for the front and back. The shoulder line was stitched and sleeve was attached at the armhole. The neckline was finished with shaped facing. Side seam was done and hemming done by folding 3 Cms.

VI) Construction of kameez with added fullness through smocking:

The front basic block 6, 4, 15, 14, 13, 11, 9, 5 was first drawn on brown paper. The basic block was cut in 10 pieces A, B, C, D, E, F, G, H, I, & J to add fullness. Piece A was 7 Cms. wide and pieces B, C, D, E, F, G, H, I & J were 1.5 Cms. wide. These pieces A, B, C, D, E, F, G, H, I, & J were
PLATE NO: 8 (A)

Design with Princess-Line.
PLATE NO: 8 (B)

Adaptation for design with Princess-Line.
kept on another brown paper. Piece A was kept on edge.

Between piece A & B, piece B & C piece C & D, piece D & E, piece E & F, piece F & G, piece G & H, piece H & I and piece I & J a gap of 2 cms was left. These gaps were named as a, b, c, d, e, f, g, h, i and j respectively. For cutting line 5, 9 the gaps a, b, c, d, e, f, g, h, i, & j were closed and the line was cut.

The back of the kameez was also cut like the front, only the neckline and armhole were according to the back basic block.

The brown paper cuttings were placed on the fabric according to grainline and fold. seam line, seam allowances were marked and the fabric was cut.

Before stitching smocking was done according to pattern at the waist line. For smocking first points were marked in rows and with running stitch gathers were made. After gathering the fancy stitches were done. The shoulder line was stitched sleeve was attached at the armhole. The neckline was finished with shaped facing. Side seam was done and hemming done by folding 3 Cms.
PLATE. NO: 9 (A)

Design with Smocking.
PLATE NO: 9 (B)

Adaptation for design with Smocking.
PLATE NO: 9 (C).

Adaptation for design with Smocking.
(A) Model wearing kameez
Princess Line

(B) Model wearing kameez with Smocking
VII. Construction of kameez with added fullness through godets:

The front basic block 6,4,15,14,13,11,9,5 was first drawn on brown paper. The basic block was cut in 4 pieces A, B, C, & D. To add fullness, a triangle piece 24, 25, 26 was cut separately. The length of the triangle 24 to 25 was same as 2 to 4, and 26 was away from 25 by 10 Cms. Point 24, 25, 26 were joined.

The back of the kameez was also cut like the front, only the neckline and armhole were according to the back basic block.

The brown paper cutting was placed on the fabric according to grainline and fold; seam line seam allowances were marked and the fabric was cut. 14 triangles were also cut.

For stitching, each godet was first attached between A, B, C and D for the front & back. The shoulder line was stitched and sleeve was attached at the armhole. The neckline was finished with shaped facing. Side seam done and hemming done by folding 3 Cms.
Design with Godets.
PLATE NO: 10 (B)

Adaptation for design with Godets.
PLATE NO: 10 (C)

Adaptation for design with Godets.
VIII) Construction of kameez with added fullness through Umbrella:

The front basic block 6, 4, 15, 14, 13, 11, 9, 5 was first drawn on brown paper. Point 18 was marked away from point 5 by 5 Cms. and point 19 was marked away from point 4 by 12 Cms. Point 18 and 19 were joined together with a straight line. The brown paper was cut along line 18, 19. The side part were cut on the bias to add fullness. The brown paper was fold at an angle of 35 and then the side part was kept on it and drawn. Fullness was added at the hemline. Point 22 was marked away from point 15 by 25 Cms. Point 22 was joined with point 11 with a straight line.

The back of the kameez was also cut like the front only the neckline and armhole were according to back basic block.

The brown paper cutting of middle pannel were placed on the fabric according to grainline and fold, seam line, seam allowances were marked. The side panel were placed on the fabric was fold at an angle of 35 and seam line, seam allowances were marked and the fabric was cut.
PLATE NO: 11 (A)

Design with Umbrella.
PLATE NO: 11 (B)

Adaptation for design with Umbrella.
(A) Model wearing kameez with Godets

(B) Model wearing kameez with Umbrella
For stitching the middle panel of the front was joined with the two side umbrella panels. Similarly stitching was done for the back of the garment. The shoulder line was stitched. Sleeve was attached at the armhole. The neckline was finished with, shaped facing. Side seam was done and hemming at the edge of the garment was done by folding 3 Cms.

IX) Construction of kameez with added fullness through shirring:

The front basic block 6,4,15,14,13,11,9,5 was first drawn on brown paper. Point 18 was marked from 6 by 10 Cms. and point 19 marked from 4 by 10 Cms. Point 18 and 19 were joined together with a straight line. The brown paper was cut along line 18,19. The side panel was cut in 13 pieces A,B,C,D,E,F,G,H,I,J,K,L & M to add fullness. The width of each piece was 1 Cms. These 13-pieces A,B,C,D,E,F,G,H,I,J,K,L & M were kept on another brown paper. Piece A was kept on the edge. Between piece A & B, piece B & C, piece C & D, piece D & E, piece E & F, piece F & G, piece G & H, piece H & I, piece I & J, piece J & K, piece K & L, and piece L & M a gap of 1 Cms. was left. These gaps were named as
The back of the kameez was also cut like the front only the neckline and armhole were according to grainline and fold; seam line, seam allowances were marked and the fabric was cut.

Before stitching shirring was done on the side pannel at the waist line. For shirring first 3-rows of stitching with large stitches was done. Than the elastic was passed through the stitches on the wrong side. After shirring the middle pannel of the front was joined with the two side pannels. Similarly stitching was done for the back of the garment.

The shoulder line was stitched, sleeve was attached at the armhole. The neckline was finished with shapped facing. Side seam was done and hemming at the edge of the garment was done by folding 3 Cms.

X) Construction of kameez with added fullness through A-Line :

The front basic block 6,4,15,14,13,11,9,5 was first drawn on brown paper. Point 18 was marked away.
PLATE NO: 12 (A)

Design with Shirring.
PLATE NO: 12 (B)

Adaptation for design with Shirring.
PLATE NO: 12 (C)

Adaptation for design with Shirring.
from 15 by 2 Cms. Point 11 and 18 were joined together with a straight line. The brown paper was cut along line 11,18. To add fullness at side 2-pieces A & B were cut. For the piece A point 19 to 20 was marked as same as point 11 to 18 and point 21 was marked away point 20 by 15 Cms. Point 19,20,21 were joined together with a line.

The brown paper was cut along line 19,20,21. Piece B was also cut like piece A.

The back of the kameez was also cut like the front only the neckline and armhole were according to the back basic block.

The brown paper cutting were placed on the fabric according to grainline and fold; seam line, seam allowances were marked and the fabric was cut.

For stitching the side pieces were joined together by stitching line 19-21 and 22-23. This was then joined with the front centre pannel. Similarly the pieces for the other side and back were joined. The shoulder line was stitched, sleeve was attached at the armhole. The neckline was finished with shaped facing. Side seam was done and hemming at the edge of the garment was alone by folding 3 Cms.
PLATE NO: 13 (A)

Design with A-Line.
PLATE NO: 13 (B)

Adaptation for design with A-Line.
(A) Model wearing kameez
   Shirring

(B) Model wearing kameez
   A-Line
3.5: **Opinion on the constructed kameez for minimizing figure problem**

Preferences of fifty girls were taken on the constructed kameez. After the selection of design and material the investigator stitched the ten selected kameez. A model was selected who had broad hip (as per standard measurements). The model wore all the ten stitched kameez and opinion of all the respondents was taken. The respondents were given the questionnaire and were asked to give a rank to the ten stitched kameez. In the questionnaire the respondents were also asked to give preference for material, fabric design, color and texture.