Although a variety of assistive devices are available to disabled persons for hair care, a review of health care equipment catalogues and the occupational therapy literature failed to reveal any devices designed specifically for drying hair. In particular, persons with upper extremity limitations, such as weakness, incoordination, limited joint motion, or the use of only one upper extremity, may have difficulty drying their hair. The most obvious solution for these persons is a simple haircut that can dry naturally. However, some individuals prefer more elaborate haircuts that need to be dried and styled. They may have their hair professionally dried and styled (an expensive solution) or use a hair dryer. There are two styles of hair dryers available: hood and hand held. The hood dryer requires the use of curlers to style the hair. Managing curlers can be difficult and time-consuming for persons with upper extremity dysfunctions. Hand-held blow dryers allow concurrent drying and styling, but require bilateral use of the upper extremities as well as adequate strength and range of motion.

The position-adjustable hair dryer solves this problem. It is a hand-held blow dryer mounted on an adjustable stand (Figure 1) that frees the extremity or extremities to hold a brush or to style the hair. This assembly allows easy control of both the direction and amount of air flow. The direction of air flow can be changed to dry different parts of the head by lightly pushing on the adjustable stand, and the amount of air flow can be controlled by moving the head closer to or farther from the dryer.

Materials
A desk lamp with spring-balanced arms, a tension control knob at each joint, and a mounting bracket serves as the adjustable stand on which the dryer is mounted. Appropriate lamps may be purchased at most department stores or through art supply companies for $15 to $20. The most suitable type of blow dryer is the lightweight, hand-held nozzle type with a flat handle.

Fabrication
The lampshade, light bulb, and light socket of the lamp are disconnected from the spring-balanced arms by removing the tension knob and screw. The bottom screw in the blow dryer handle is also removed. The final assembly step is to insert the tension knob with its screw into the empty screw hole on the handle of the blow dryer (Figure 2). The tension knob is then tightened until the blow dryer is securely in position.

Although there is some variation between lamp models in the way the lampshade and light socket are attached to the arms, the method of attachment of the...
blow dryer to the arms is basically the same from lamp to lamp. If desired, the electrical cable from the lamp can be connected directly to the electrical cable of the blow dryer to eliminate the need for extension cords or power strips. A qualified electrician or service person should do this job because it involves cutting and splicing wires.

An alternative to using the spring-balanced arms of a desk lamp is to use a gooseneck (flexible chrome tube). Goosenecks with a clamp at each end are available from many health care equipment companies. Mounting a blow dryer on a gooseneck requires very little assembly; a radiator hose clamp makes the attachment. A gooseneck provides a means to stabilize a blow dryer, but more strength is required to position a gooseneck than to position the spring-balanced arms of a desk lamp.

Conclusion

The position-adjustable hair dryer has been successful in increasing independence in hair care for persons with hemiplegia, rheumatoid arthritis, and quadriparesis. It also can help persons with upper extremity incoordination because mounting the dryer frees the upper extremities to brush and style the hair. Furthermore, weak, incoordinated, or contracted upper extremities can be supported on a table or countertop, thereby conserving energy and strength and assisting the person in reaching various parts of the head while styling the hair.

Although stands are available for some blow dryers and a blow dryer can be permanently mounted in an appropriate position, the position-adjustable hair dryer requires less body movement because the dryer can be positioned in any plane the user desires. Very little strength or energy is needed to position the dryer, yet the stability of the dryer is maintained at all times.

Spring-balanced arms can be used to stabilize other equipment besides hair dryers and may be useful as bases for equipment when goosenecks are inappropriate.

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