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Taking a Closer Look at Attitudes toward Loupes among Plastic Surgeons: A Pilot Study

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Surgical loupes are an essential part of a plastic surgeon's toolkit, and although they are widely used in all subspecialties, there have been few studies investigating their selection, usage, ergonomics, and satisfaction among plastic surgeons.[1] We conducted a pilot study at our center, using a 21-point questionnaire, to investigate the attitudes among plastic surgeons with regard to these domains.

Forty-one plastic surgery doctors participated in the survey. We found a significant number of manufacturers available, with a trend toward purchasing a cheaper pair among juniors. However, cheaper pairs were associated with higher levels of dissatisfaction, and a tendency to purchase a more expensive pair. We also noted that higher magnification loupes were associated with an increasing dissatisfaction with weight, while conferring no greater satisfaction with magnification (►**Figs. 1**, **2**). Loupes were used variably across subspecialties, with a preference for microscopes for vessel work. Additionally, we discovered significant levels of self-reported neck and back pain associated with loupes (see ►**Fig. 3**).

Despite participant rate being a limitation, our study is the first to provide insight into the preferences and patterns of loupe usage among plastic surgeons. Our findings suggest that ×2.5 offers a good balance between weight and magnification. Interestingly, despite most trainees making significant financial investments in loupes, less than half would recommend their loupes, advocating a move for manufacturers to offer more flexibility with trialing different loupes before trainees make a commitment. Although loupes appear to be used frequently in hand trauma, there was more variation in skin cancer marking and excision. There is some evidence to suggest improved excision rates with the use of loupes, but this remains debated.[2] The general preference of using microscope for vessel work is not surprising in the United Kingdom; however, it is curious to note in some units where loupes are more frequently used for free flap anastomosis; they report equivalent outcomes to microscope usage.[3] Though loupes offer a potential ergonomic and time advantage over the microscope, there are still significant

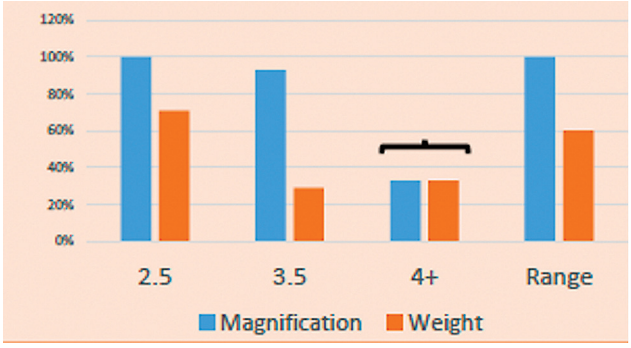

Fig. 1 Graphical image showing percentage of respondents who were satisfied/very satisfied by magnification.

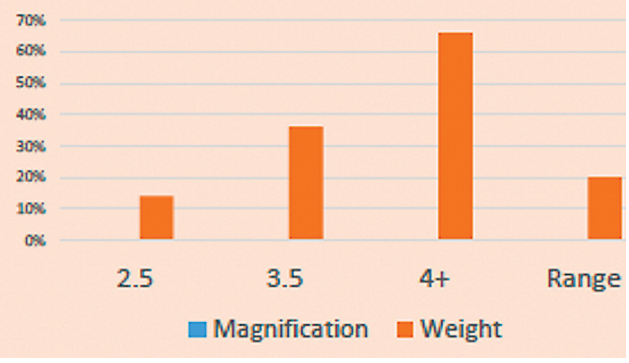

Fig. 2 Graphical image showing percentage of respondents who were unsatisfied/very unsatisfied by magnification.

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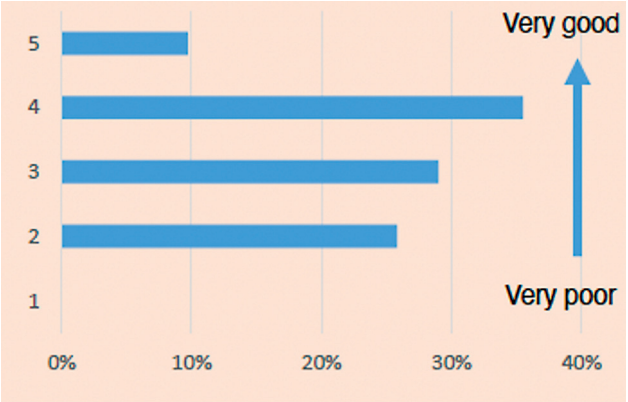

Fig. 3 Self-reported posture rating.

issues with weight at the required higher magnifications, and significant associated levels of neck and back pain.

Our study provides valuable insight about loupe usage in plastic surgery, especially for trainees entering the specialty. We hope to use this pilot study as a foundation to plan future studies on a national level, to further delineate the importance of loupes, and drive improvement in their design and breadth of application.

Conflict of Interest
None declared.

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