

Phonak Bolero Q – new housing design

Field Study News

Attractive, modern, high-value and reliable

Summary

The new Phonak Bolero Q Behind-The-Ear (BTE) hearing instrument family based on the new Phonak Quest platform gives a modern and high-value impression thanks to the new housing design. In this study the new Phonak Bolero Q housing was compared to the Phonak Ambra, the current benchmark. The spontaneous results show that the completely redesigned housing of the Phonak Bolero Q was rated as more modern, more attractive and had a high-value look and feel. Overall the design rating during the study showed an improvement compared to the Phonak Ambra design. The results also showed that the handling of the Phonak Bolero Q products were good and comparable to the handling of the Phonak Ambra devices.

Introduction

The new Phonak Bolero Q BTE range on the Phonak Quest platform introduced not only new powerful features but also a complete redesign of the housing. The redesign includes a new look and feel of housings and new user controls: a new volume control and a new push button. In addition all Phonak Bolero Q housings are lacquered to give a modern, high-value impression. Finally all models are nano coated with the newest plasma technology, P2i, for better reliability.

Goal of the study

The goal of this study was to investigate if subjects preferred the improvements of the new redesign of the Phonak Bolero Q housings compared to the Phonak Ambra housings. The subjects rated their spontaneous impression of the housing when they saw it for the first time. In this situation the question was based on the design, conspicuousness, size and how modern and high quality the housing is. Additionally the handling of the new housing and controls was compared to the previous model and the reliability of the hearing instruments was tested over an eight-week time frame. The following hearing instrument models were used in this study:

Phonak Bolero Q-P in Amber Beige compared to the Phonak Ambra microP in traditional Beige (fig. 1). The Phonak Bolero Q-M312 in Graphite Gray was compared to the Phonak Ambra microM in Dark Cliff Gray (fig. 2).

Phonak Bolero Q-P

Phonak Ambra microP



Fig. 1: The test devices Phonak Bolero Q-P in Amber Beige on the left side and the Phonak Ambra microP in traditional Beige on the right.

Phonak Bolero Q-M312

Phonak Ambra microM



Fig. 2: The test devices Phonak Bolero Q-M312 in Graphite Gray on the left side and the Phonak Ambra microM in Dark Cliff Gray on the right.

Method

All subjects had to first rate the style and the design of the housing using a semantic differential methodology. This was done in a crossover-design. Half of the subjects initially rated the Phonak Bolero Q and then the Phonak Ambra, the other half of the patients started with the Phonak Ambra. After the semantic differential study, the subjects wore the hearing instruments for two weeks in real life, with Phonak Ambra technology encased in all housings. This ensured that no bias could be introduced in terms of sound quality. Each subject was fitted with Phonak Bolero Q housing on one ear and Phonak Ambra on the other ear and both devices contained Phonak Ambra features. During this first two weeks the main focus was the handling of the volume control and the push button, as well as the reliability of the housing. After the first two weeks of wearing time the subjects had to rate their design and handling preferences. For a better reliability test, the subjects wore the hearing instruments for an additional six weeks, with a total of eight weeks of testing.

Test subjects

Fifteen subjects (all men) took part in this study. Ten of the fifteen subjects had a moderate to severe hearing loss and were fitted binaurally with the Phonak Bolero Q-P housing and Phonak Ambra microP. The other five subjects with a mild to moderate hearing loss were fitted binaurally with the Phonak Bolero Q-M312 housing and Phonak Ambra microM. The test subjects were between 53 and 85 years old, with an average (mean) age of 68.2 years.

Results

The results of the semantic differential of the subjects with Phonak Bolero Q-M312 show that the new lacquered housing was rated to be more modern and high-value compared to the Phonak Ambra microM (fig. 3). The semantic differential of the Phonak Bolero Q-P showed an improvement in all categories compared to the Phonak Ambra microP. It should be pointed out that for the Phonak Bolero Q-P the redesigned housing was rated as more attractive, more modern and high-value. The rating, for the differential modern vs. old-fashioned, was significantly better for the Phonak Bolero Q-P housing compared to the Phonak Ambra microP housing (Wilcoxon matched pairs test $p=0.042$). The design rating throughout the study period showed that the redesigned housing of the Phonak Bolero Q was appealing or very appealing for all subjects and had better results compared to the Phonak Ambra housing (fig. 5).

Semantic differential
microM (n=5 of 5)

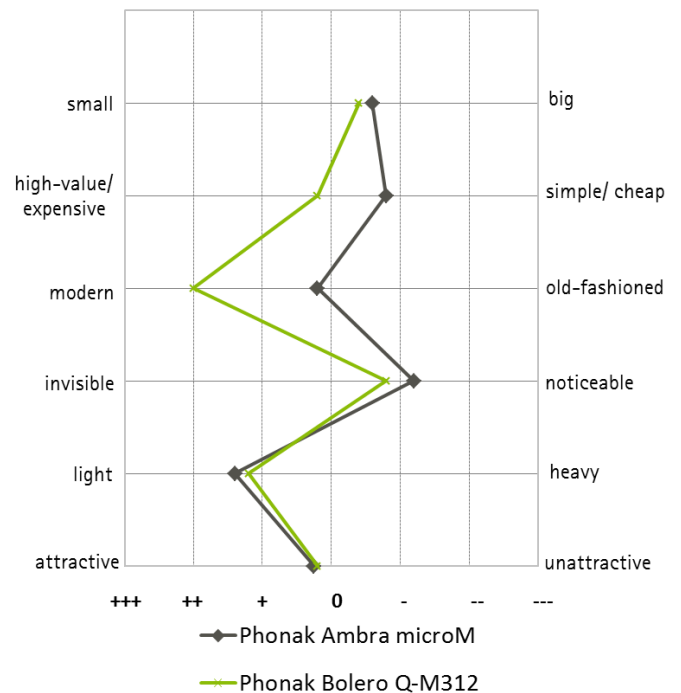


Fig. 3: Semantic differential of the comparison of Phonak Bolero Q-M312 vs. Phonak Ambra microM (n=5).

Semantic differential
microP (n=10 of 10)

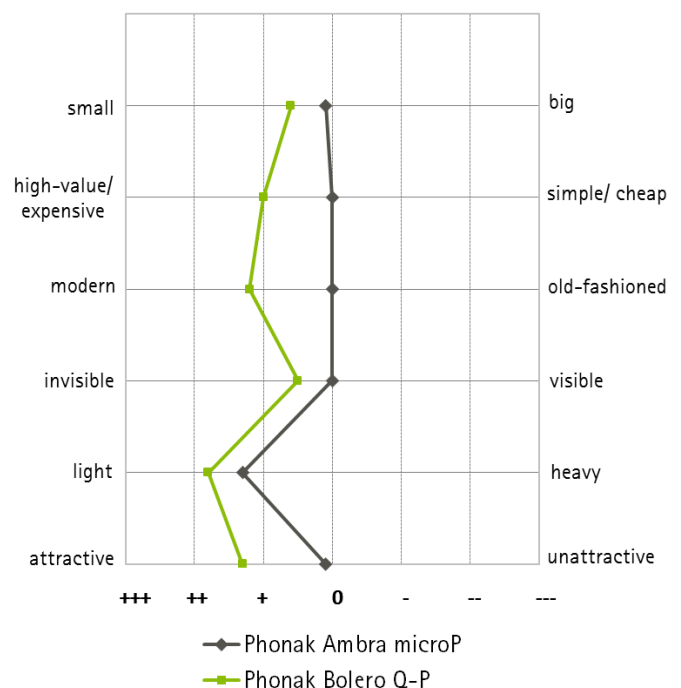


Fig. 4: Semantic differential of the comparison of Phonak Bolero Q-P vs. Phonak Ambra microP (n=10).

Design rating throughout the study period

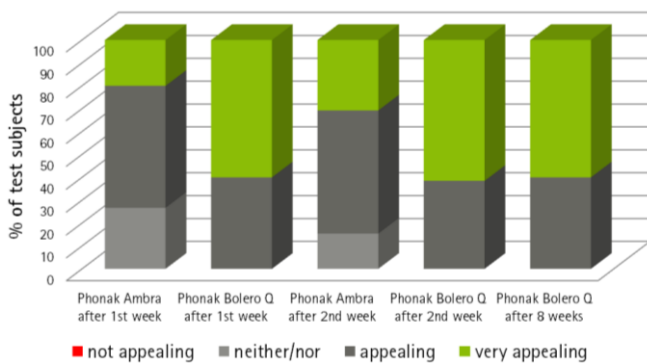


Fig. 5: Design rating throughout the study period (n=15).

After the first two weeks of wearing time, the next part of the study looked at the preference rating of the design and the handling. The redesigned Phonak Bolero Q housing was fitted on one ear and the Phonak Ambra housing on the other ear. The result of this preference rating (fig. 6) shows that two-thirds of the subjects preferred the new housing design. The handling of the new push button and the new volume control was rated as good compared to Phonak Ambra. There were no significant differences between the handling ratings, with 1/3 preferring the Phonak Bolero Q, 1/3 preferring the Phonak Ambra and 1/3 showing no preference. This positively shows the improvements in design appeal were not at the expense of ease of use, although the Phonak Bolero Q housings are smaller in size.

Preference rating of the handling and the design after two weeks wearing time

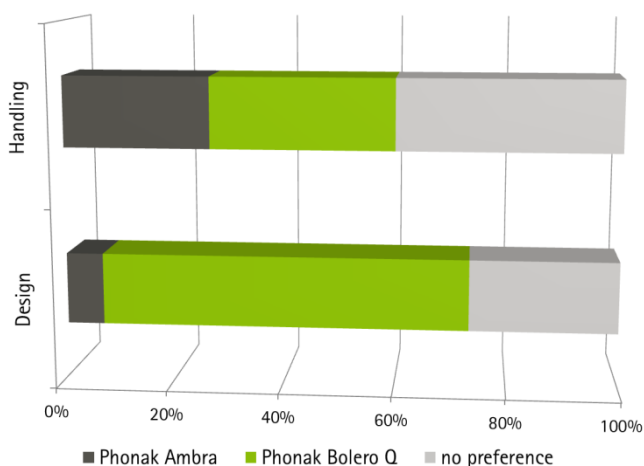


Fig. 6: Preference rating of the handling and design after the first two weeks wearing time of all patients (n=15).

The reliability of the redesigned Phonak Bolero Q housings was good. Another positive observation of the fitters was that the new nano-coated Phonak Bolero Q housings were more resistant to dirt than the directly compared Phonak Ambra housing in the first two weeks wearing time.

Conclusion

The redesigned hearing instrument housings of Phonak Bolero Q were rated as appealing or very appealing throughout the study period. Two-thirds of the subjects preferred the new housings after only two weeks direct comparison of the housing in real-life testing. Additionally, the semantic differential showed that Phonak Bolero Q was rated as more modern, more attractive and high-value compared to Phonak Ambra. The handling of Phonak Bolero Q housing was good compared to Phonak Ambra. The reliability test over eight weeks showed positive results.

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