A corrected statement of Corollary 3.14(a) from the published paper is below.

LEMMA 3.14. *Under the conditions of Theorem 3.13, the following hold true.*
(a) If $\beta_k = \beta \in (0, 2\overline{A}/(\overline{A}+\theta))$ *for all* $k \geq \bar{k}_{\tau,\xi}$*, then*

$$\mathbb{E}_{\tau,low}\left[\frac{1}{k+1}\sum_{j=\bar{k}_{\tau,\xi}}^{\bar{k}_{\tau,\xi}+k}\left(\frac{\|g_j+J_j^T y_j\|_2^2}{\kappa_H^2}+\|c_j\|_2\right)\right]$$
$$\leq \frac{\kappa_\Psi+1}{\kappa_q\bar{\tau}_{\min}}\left(\frac{\beta\overline{M}}{\overline{A}-\frac{1}{2}(\overline{A}+\theta)\beta}+\frac{\mathbb{E}_{\tau,low}[\phi(x_{\bar{k}_{\tau,\xi}},\bar{\tau}_{\min})]-\phi_{\min}}{(k+1)\beta(\overline{A}-\frac{1}{2}(\overline{A}+\theta)\beta)}\right)\xrightarrow{k\to\infty}\frac{(\kappa_\Psi+1)\beta\overline{M}}{\kappa_q\bar{\tau}_{\min}(\overline{A}-\frac{1}{2}(\overline{A}+\theta)\beta)}.$$